THE

Chicago Medical Journal.

A MONTHLY RECORD OF

Medicine, Surgery and the Collateral Sciences.

EDITED BY J. ADAMS ALLEN, M.D., LL.D.; AND WALTER HAY, M.D.

VOL. XXX. — MAY, 1873. — NO. 5.

Original Communications.

ARTICLE I.—*The Use of the Speculum.* A Paper read before the —— Medical Society. By ——.*

Your Committee, in making their report upon Diseases of Woman and Obstetrics, have thought best not to be sternly restricted to any methodical order, but to submit a report of such cases as will be most likely to furnish the greatest amount of interest and practical information, assuming that all diseases accumulate or increase in interest proportionally as they are of frequent occurrence. Of all the various callings or professions of life none so imperatively demands a clear head, a self-reliant, thinking, practical mind, as the profession of medicine; and more particularly so at this present age, in these special branches.

From the days of Celsus, in no period has the practice been as difficult, unsettled and complicated, as at the present, not only in the practice of medicine, in the strictly modern meaning of that term, but diseases of woman and obstetrics as well. In the early

* The Author's name being on another slip as sent to us, has unfortunately been mislaid. Will he please notify us? ED.

history of medicine, the simple theories and remedial appliances had but little influence either in aiding or opposing the efforts of nature; the present age is ripe with theories, full to repletion with means and appliances, theories speculative, antagonistic, and dangerous; in some instances aiding, in others thwarting every effort and purpose of nature; remedies potent, harmless and poisonous, and of these latter their name is legion. Is it possible for any one to enter this vast field of chaos, in search of truth, without a mind and will to think and act for himself?

But perhaps a glance at the theories and practice of the present time will better elucidate the many difficulties the physician has to encounter. The great ambition of the physician of this modern age is alone gratified when he gives free scope to his mental powers in the development of some new theory, disease, instrument or remedy; especially in diseases of woman and obstetrics. And is it not the observation of every physician, that whether actuated by a desire to emulate either himself or the profession, this undue effort tends more largely to the obstructing of the medical pathway than to make plain and practical the duties of the physician? As an instance of this fact, you will pardon me for referring to this observation, made by a distinguished European author to his class. He says, "The usual curriculum of study given in the schools is sufficient to enable any one with ordinary practical ability to diagnose all common or ordinary diseases, but the detecting of diseases peculiar to woman, in their complicated and obscurer shades, furnishes a condition involving questions of the most intricate and important nature." These teachings are well intended to inculcate impressions perfectly erroneous and false.

Now, it is true, that the distinctive peculiarities of the female constitution have from the earliest morning of the healing art in every important era in the history of the great past, and perhaps for all time to come, will be regarded of peculiar interest and may be well worthy especial consideration and attention. But after all these long years of toil, of the most earnest study and microscopic inquiry, laboring constantly and incessantly to bring before the medical world some peculiar unknown pathological condition common alone to the uterine organs, we are left to retrace the stream of medical science over which we have been so uncon-

sciously gliding, back to the anatomist and physiologist, to inquire of them, what *is* there peculiar or different in the structure or phenomena of these organs to necessitate such unlimited straining and labor? What *are* these peculiar diseases referred to, masked in shades obscure? Is it *true* that the arteries, veins, nerves, lymphatics, or any part of the whole parenchymatous tissue of the uterine system, differ so materially in their anatomical structure in the uterus from that of any other part of the body as to make *it* subject to diseases peculiar to itself? That diseases of the uterus seem at times to be disguised in shades obscure and difficult of detection, no one will pretend to deny, and neither will it be denied that all other organic lesions of the female body are at times equally involved in obscurity. But to attempt to account for these anomalous conditions upon the hypothesis of there being a disease peculiar to that organ, not well understood, as the learned gentlemen would have us believe, either in pathology or treatment, only by physicians of metropolitan fame, is assuming a position, to say the least of it, not entitled to much credulity from physicians of reading and bedside observation. The deep anxiety, the earnest solicitude and care, which has incited the true physician to spend many a long and tedious hour at the bedside interpreting these morbid and distrustful phenomena, the terrible writhings and contortions of every muscle of the body, or, indeed, any of the protean forms of hysteria, inclusive of the false phases alluded to, ask no better solution of their true nature than that there is predominating within woman, a delicate, *finely developed, highly excitable nervous condition*, and in consequence of which alone, she is largely predisposed to *diseases* of a *nervous character*, and not so much to mysterious and not-well-understood organic disease, and the uterus being a very vascular and highly nervous organ, when diseased, through its direct relationship with the great sympathetic nervous system, would very naturally call into sympathy other members of the same body; indeed, no fact is more evident to the practitioner than that it is capable of exercising a dread and baleful influence on every organ in the body, no matter how remote from the true seat of the disease, and not only does it extend its influence throughout her physical organization, but in many instances her mind, body and very soul suffer simultaneously; and herein consists the great and only difficulty, if indeed it

must be so regarded, in the diagnosis and treatment of diseases belonging to this class. But ever holding before the mind the various pathological conditions and phenomena likely to result from, and as perhaps we might say, are the natural and inevitable sequence of, diseases of the uterus, together with a careful and vigorous study of the temperament, idiosyncracy, habits of life, nature, course, and termination of previous diseases, if any, these anomalous conditions will be abridged, and in many instances make a plain and practical pathway.

Diseases of the uterus are, in our opinion, as well if not much better understood, as a rule, than lesions in any other organ in the body. In all organic diseases we are apt to expect and look for a common, definite and invariable train of phenomena. These expectations always have been and ever will be met with disappointment. The ever-varying phases of diseases of the uterus are, of all other organic lesions, the best calculated to attract the mind to organs entirely remote from the true seat of disease. Indeed, in no two instances have we ever found diseases of this organ indicated by the same train of symptoms. The nervous system succeeds perhaps more completely in perfecting the action of reflex sympathetic sensation than in any other organ; in many instances all its diseased phenomena, even pain and disease itself, are reflected to and established in remote organs; and, indeed, in many instances which have been brought before our notice, these secondary diseases resulting from the remarkable sympathy, involved more structure and ultimately assumed a vastly more serious character than the primary lesions. A case in practice will perhaps better elucidate this fact. From note book of practice in the year 1864, the following case is substantially taken:

In the month of April I was called to see a lady supposed to be dying of phthisis pulmonalis. Arriving at the house and upon entering the sick chamber I saw at a glance that the physical signs indicated the existence of this morbid condition in its most serious form. Interrogations elicited from the patient the following statement:

"Am 45 years old; have five living children; miscarried last conception, time three months; have never had any indications of disease until about one year ago; the first symptom at this time

was extreme fatigue after moderate exercise, which was succeeded in time by shortness of breath and dry hacking cough. This condition in three months' time developed into a cough very harassing. Expectoration free and copious. Have been taking medicine for the past six months, from five different physicians, some of merit, ability and practice. By the greater and more learned part was treated for chronic bronchitis. Have taken no medicine for the past three months except expectorants, being at times alternately better and worse."

A careful examination revealed the present following condition: Cough incessant, expectoration very profuse, of a thick whitish mucous consistency; respiration hurried. By auscultation, the mucus rale could be distinctly heard over both lungs, pulse 110, no fever, anorexia, great emaciation, pale and anæmic; dejected as to all future hopes; has had slight mucous discharge per vaginam for the last two years; no hereditary tendency; temperament well marked, nervous sanguine.

The peculiar manner of the inception of her disease, extreme exhaustion after moderate exercise, the abortion, and vaginal discharge, at once suggested the probable existence of diseased womb. These convictions were stated to patient and permission asked to use the speculum, which was readily granted, the use of which disclosed the existence of a very unsuspected malady on the part of the patient, and made very plain the true seat of the disease. The os uteri was dilated sufficient to admit the end of index and middle fingers, hypertrophied and of a pale bloodless appearance; a very large ulcer occupied well nigh the entire right half of the os and extended well up the canal, of a fungous character. It certainly afforded me much pleasure to inform this lady that her condition was not beyond the reach of remedies, and that the strongest hope was entertained of a complete restoration to perfect health, as there could be nothing more evident than that the lung trouble, anæmia and general emaciation were but the sequel to this primarily diseased uterus. In proof of the correctness of this conclusion, the treatment and result is herein submitted:

Internal treatment, one pill of quinine and Vallett's ferruginous mass, in proportions of one grain of the former and two of the latter, was ordered every six hours, also tinct. ferri. chlo., drs.

two; syrup zingiber, oz. one; syrup simplex, oz. two. Dose, teaspoonful every six hours; nourishment ad libitum. To the ulcer a topical application was first made of penciled nit. of silver, applying it well up the cervix, to be followed and continued twice a day with free injections of lukewarm water medicated with saccharum, saturnii, and opii pul., until next visit. Early in morning of following day was sent for in haste, patient supposed to be dying. Arriving at the house, patient was found in a truly alarming condition, all former described symptoms greatly intensified, breathing labored, pulse scarcely perceptible, cold clammy sweat all over the body; morphine was ordered sufficient to quiet nervous irritability; beef essence and brandy were to be given in addition to the above, every two hours. From this to the fourth day patient rallied, at which time acid nit. of mercury was topically applied to the ulcer, and followed as before with free ablutions. This application was repeated on the sixth, twelfth and eighteenth days, after which penciled silver nitrate was used for a period of six weeks, according to indications; followed by injections and internal treatment as given above. At the end of the seventh week patient was so far recovered as to justify the withholding the use of all medicines, and no other treatment was from this time forward used excepting the internal use of iron, and the free ablutions per vaginam, the water used being strongly medicated with ferric alum, which we regard as an indispensable remedy in the treatment of these diseases.

On the fourth month, dating time from my first visit, to the great surprise of all interested, patient was discharged free from cough, and in the enjoyment of her former perfect health, and has continued so to this present time. What are the important facts indicated in the history of this case? First, it proves most conclusively that there is a remarkable sympathy existing between the uterus and other organs in disease, and the still more remarkable and deceptive property of its nervous system in transmitting its diseased phenomena, and the efficiency with which its actions are endowed in establishing even disease itself of the most grave and serious character in organs entirely remote.

Another important fact elucidated in this case is the importance of examining diseased conditions, with a view of ascertaining facts rather than to carry out some finely-spun theory, and that when diseases of the womb are examined as they should and may be,

although seemingly of the most intricate character, they are in the majority of instances made plain, simple and practical, and of all other diseases the most kind in yielding to remedial appliances. Another fact is the non-reliability of certain symptoms which from time immemorial have been held as essential to the existence of this malady, not one of which existed in this case, not even so much as a well established leucorrhœa. The last, yet not by any means the least, other fact which we would call attention to in this case, is the utility of the speculum in the examination of this class of diseases, about which so much has been written by doctors of both Continental and European fame, some supporting it, others holding its use to be unchaste, indelicate and wholly unnecessary, inasmuch as they claim that examinations made by the toucher are equally reliable and much more agreeable to the delicate and sensitive female. A preference for the position of the patient, held as essential in this form of examination, the ofttimes rude and irritating manipulations actually necessary to make an expert in the use of the toucher in detecting the disease, and the application of remedies thereto, is a modesty pitiable and unenviable in the extreme, and in our opinion exists much more largely in the false imagination of the physician than with the patient.

If the latter assumption is true that it is equally reliable, then it is true that the treatment of ulcers, and in fact any disease of the external surface of the body would be better treated, and their pathological condition better or as well understood, by excluding the sense of sight altogether. But admitting that instances do occur in which the diagnosis and treatment of diseases of this organ may be effected by these means, are there not instances in which it is totally inadequate and unreliable? Take, for instance, the two following cases:

In the spring of 1861, I was called to see a lady aged 64, of Irish descent, and of the common national nervous temperament. Had given birth to nine healthy living children, had two premature deliveries, had never suffered from sickness until within the last month. The first indication of *her* disease, using the language of the patient, "was a fluttering sensation a little inferior and to the right of the umbilicus," being the right iliac. In short, there were no other indications of disease at this time excepting occasional nausea and vomiting. She sternly disclaimed ever having had any

previous disease of either bowels, kidneys, urinary organs, or uterus. Menstruation had ceased some ten years, had always been healthy, and in no instance followed with unhealthy discharges. Finding no well marked evidence of disease of any of the other viscera of the bowels, a diseased uterus was supposed to be the most likely cause of this anomalous condition, and consequently an examination was instituted per vaginam by the toucher, no better means being at hand, hoping to be at once relieved of all uncertainty in the diagnosis of her disease. This expectation soon met with sad disappointment, as the touch furnished no evidence of disease whatever, excepting induration of the anterior lip of the os, which condition I did not and do not regard as necessarily incompatible with, or uncommon in, perfect health. Relying implicitly at this time upon this method of examination, the impressions first made of the probable existence of uterine disease were at once dismissed, and for the present decided to treat present indications. A laxative enema was prescribed, to be followed by an anodyne enema. This, however, and in fact all other remedies used, furnished but temporary relief. Three weeks later, patient no better; nausea and vomiting, which at first demanded little attention, have now assumed grave and unmanageable proportions, rapidly ejecting both nourishment and remedies. This, together with the general prostration and emaciation, presented the most alarming phase of the disease. The only means from which relief could now be obtained was blistering, and the hypodermic use of morphine, and even these were far short of accomplishing what was desired. My esteemed and worthy friend, Dr. Winston Somers, was called in consultation. A very thorough and careful examination was made according to DaCosta's method of exclusion; finally a very indefinite conclusion was reached in favor of cancer of the pyloric orifice of the stomach. On the following morning a suspicion once more arose respecting the uterus, and of the possible inefficiency of the former method of examination, and to set this question forever at rest the speculum was used; before using it, however, an examination was again made by taxis, and resulted without having the least apprehension aroused of disease in that region. A bivalve speculum was then introduced, and to my great surprise, I was apprised of the existence of ulceration of the cervix uteri. The outer surface of the os was, as

indicated by the touch, smooth, regular and of a healthy appearance; well up the cervix, entirely beyond the reach of the finger, a small granular white spot was observed, about the size of a pea. This was afterward, upon dilatation of the os externum, found to be but the inferior border of a large ulcer extending up the canal. The despondency of both patient and physician were at once changed into a lively hope, and patient was at once assured that fears need no longer be entertained of her future health and speedy recovery. The treatment in this case from this time consisted mainly in topical applications to the ulcerated surface; nitrate of silver, acid nitrate of mercury, were the most important, followed in time with free ablutions, consisting of the ferric alum solution, a pill consisting of extract of belladonna, and opii pul.; each grs. one was wrapped in cotton wool and introduced into the vagina, and was followed with a very happy result in quieting the stomach. After the first depressing effects of the topical application had passed off, all symptoms began to assume a more favorable aspect, and in due time patient was discharged convalescent.

The next important case in this connection was that of a lady, æt. 38, bilious temperament; has been troubled with pain for some time in lumbar region, with slight leucorrhœal discharges in last six months; is now having excessive hemorrhage from vagina. Having delivered this same lady, some four weeks prior to this time, of a three-months' conception, and as the placenta, liquor amnii and fœtus all came away intact, there was no reason to suppose the hemorrhage the result of the common cause, retained placenta. A thorough digital exploration of the vagina was also made in this case, anticipating that by this means I would readily trace the hemorrhage to an adventitious growth in or about the neck of the uterus, but in this, likewise, I was disappointed. The os, so far as could be reached by the finger, was smooth and regular, but dilated so that I could readily detect the blood flowing, as I then thought, from within the uterus. The most rational course indicated at this time seemed to be to treat the case upon general principles, and trust to time for the further development of facts. Without following this case further, let me say, in short, that every means and appliance from which I could anticipate the least profit were used: astringents, arterial opiates, and sedatives, and finally the tampon, being first well soaked in a strong solution of

sacch. saturni and opium, all of which were but temporary in controlling the hemorrhage. The non-coagulability of the blood which appeared at an early period, rendered the tampon almost entirely ineffective, and in spite of all efforts to the contrary the bleeding continued, at times greater, at others less, until patient became almost as pale and pulseless as death. The bleeding had become of a thin sanious character, and death by syncope was strongly indicated. Being confident at that time that through the touch I could detect any lesion within its reach from which the hemorrhage would likely proceed, and relying implicitly upon the evidence furnished thereby, together with the assurance from all authority at hand of the extreme infrequency of uterine hemorrhage, only as a result of causes entirely remote from those I could have the least anticipation of disclosing through the speculum, I had treated the case thus far without its use. But as the condition had now become desperate, and having exhausted every other available means, as a dernier resort the speculum was now used, with a vain hope of its disclosing some fact that would aid in the diagnosis and treatment of the case. A bivalve one was selected, and used with the following result:

The first observation seemed to simply confirm the deductions made from the previous digital examination. The os was smooth and to all outward appearances healthy, excepting the dilatation which I supposed to be the result of the excessive bleeding. Those impressions, however, were scarcely made when my mind was attracted to the extreme elongation of the cervix. This fact was contemplated with some hope that perhaps the superior part of the canal had not been reached by the finger; in this anticipation I was fully confirmed. The closed blades of a long pair of forceps were then passed into the cervical canal at least two inches without the least resistance. By separating the handles of this instrument the lips were separated, exposing to full view the whole course of the canal, and also to my great comfort the true, unmistakable source of the bleeding, being far up the left side of the cervix, and from the vessels involved in an ulcer. Of all men living, it belongs to the physician, alone, to appreciate the degree of responsibility, the mental and physical anxiety and toil experienced in the treatment of a case like this, and the relief furnished in this examination; and surely it belonged to the lights of the

speculum alone to set at defiance all future controversy respecting the cause and source of this bleeding, as through it was brought into view almost the very arteries and veins, out from which was fast flowing the life of this patient. A pledget of lint was at once made, around which was tied a silken cord of length sufficient to extend without the vulva; after being well soaked in a solution of persulphate of iron, this pledget was first firmly pressed against the bleeding surface within the canal. In the course of half an hour the bleeding for the first time was fully arrested. In forty-eight hours this pledget was removed by traction at the cord, and a new one inserted. After its removal the nitrate of silver was topically applied to the ulcer, sulphate of copper and the ferric alum solutions were used as indicated. From and after the time the first pledget of lint was used, there was no further difficulty experienced in controlling the hemorrhage, the ulcer yielded kindly to above treatment, and in due time this patient was also discharged in the enjoyment of perfect health.

That a perfect knowledge of the true pathological condition and the successful treatment was in these two instances dependent upon the use of the speculum, certainly no one will pretend to deny; and doubtless its use with equal certainty and importance has been indicated in many instances in the practice of almost every physician. Why not then let the speculum at once and forever be regarded as a fixed scientific means of examination of all diseases belonging to this class, and place it in the list where it belongs, among the most important and reliable instruments, and, when used with prudence, as little objectionable as any known to the profession? And when considered in the light of its "anatomical and physiological predisposition to disease, with the liability, to which its position in the body exposes it, to frequent physical contusions," together with the unlimited abuse which the false and in many instances criminal pride and practices of this modern age have subjected it, it cannot be regarded as a far-fetched or unreasonable conclusion, that inflammation and ulceration of the cervix uteri is of so very frequent occurrence. Indeed these deductions are but the reutterance of facts which are corroborated in the teachings and practice of wise physicians of all ages. And does it not seem reasonable, at least, in this nineteenth century, an age in which medicine in all its parts is supposed to be reduced

to a perfect science, that these plain facts, supported as they are by the experience and observation of the most worthy physicians from the earliest history of medicine, should now be established and entitled to full credulity?

But, on the contrary, the tidal wave in medicine moves on, and these simple, plain truths are still the theme of ardent and zealous controversy, some supporting, others utterly denying the existence of ulceration at all, and still others who regard it as the parentage of almost all diseases to which the female constitution is liable.

This demoralized status of this as well as all other branches of our profession, will ever continue, just so long as every child in medicine assumes the high prerogative of a medical teacher, and their teachings, with every false conception which flits across the medical mind, are permitted to flood the country as high medical authority. Let the proper authorities close up to these premature and chameleon-colored teachers the various avenues through which they reach the public and medical mind. Deprive them of this garb of credulity. Let the inventions of pessaries and silver-mounted uterine supporters, and in fact all the vast array of cunning inventive genius, be subjected to the test of good common practical sense, rather than the beautifully worded recommendations, upon which much greater reliance is placed than upon the intrinsic merits of the inventions themselves.

Swifter than with the wings of the morning have we been gliding down the stream of medical science, constantly accumulating and gathering upon every hand new theories and remedies until the present, and we now wake up not to find a well-regulated and accredited science, but to find well nigh the whole system of medicine submerged beneath a flood of theories both true and false. Facts which ought to stand out in bold simplicity are prostrated in utter confusion and turmoil. And is it not a grave and deeply humiliating fact, that notwithstanding all our past experience and boasted acquisition of knowledge, even this branch is still regarded as a mere conjectural art? Are there not truly the greatest responsibilities resting upon the physician of the present age? And we need not pause a great while in amazement or wonder, contemplating these facts; they are not by any means inexplicable. The normal condition of all well organized bodies

is equally dependent upon actions diametrically opposite: growth and development, disintegration and separation. Let the depurating organs of the human system be closed up for the shortest conceivable time, and notwithstanding the greatest amount of pure healthy nutriment is forced into it, yet the inevitable result is disorder and death, and no one for one moment would regard the result as strange or inconsistent.

And none the less dependent is the healthy condition of science upon these same essential vital actions. We had better pause awhile at this advanced age, and perhaps a careful study of these truths may disclose the very important fact, that these vital and reciprocal actions have been greatly neglected, thereby permitting all the rubbish, effete and worn-out material of the great past to accumulate in immeasurable proportions around the very heart of this as well as every other branch of medicine.

ARTICLE II.—*Epidemic Cerebro-Spinal Meningitis.* Extracts from an Essay read before the Medical Association of Northeastern Ohio, by S. HUDSON, M.D., of Medina, Ohio.

* * * * The disease generally prevails in the winter or colder months of the year, showing that it is not caused by malaria; indeed, I have never known it to prevail in miasmatic or malarious districts, as an epidemic. Whether it is contagious or not is not definitely settled, much difference of opinion existing upon this point.

As to its pathology, I believe it is admitted by all to be an inflammation of the meninges of the brain and spinal cord; and this inflammation varies from the highest, or sthenic, to the lowest, or asthenic, type; both of these conditions obtaining sometimes—at different periods of the disease—in the same person. Such was the character of most of the cases in the epidemic that occurred in Medina, Ohio, during the winter of 1863–4, the mortality of which was about 80 per cent.

I come now to the most interesting question connected with the consideration of this disease, *i. e.:* What is it—what is its true nature? I answer, that after close observation and treatment of

many cases, I have had the conclusion forced upon my mind that *epidemic cerebro-spinal meningitis* and *epidemic erysipelas* are one and the same disease. In other words, that cerebro-spinal meningitis is nothing more than an erysipelatous inflammation of the meninges of the brain and spinal cord. My reasons for this opinion will appear before I close, and it is for you to judge if they be valid.

The symptoms of the disease vary much in different cases. Sometimes the attack is so sudden that the patient is found insensible, and so continues until death; but as a general thing several days' indisposition, accompanied by cephalalgia, precede the full development of the malady, which is ushered in by a chill of more or less intensity and duration. I have known these chills to vary from slight chilliness to an attack so severe that the patient succumbed without reaction ever taking place. Reaction, however, usually occurs; febrile symptoms manifest themselves, and you shortly after discover that your patient has hemiplegia; or is blind; or perhaps deaf; speechless, with contracted pupils; opisthotonos, or convulsions, may follow in rapid succession, and of the most alarming character; tongue covered with a moist, white coating; bowels usually constipated; incessant vomiting. Retention of urine is very frequent, as is also dysphagia. In other cases the patient complains only of headache; is inclined to sleep most of the time, the drowsiness finally passing into coma with stertorous breathing, in which condition he dies. In the cases which came under my notice, the most of them had, at the onset, a peculiar lazy, sluggish character of pulse, more easily recognized than described. In many of the cases I was enabled to make my diagnosis at once from the peculiar condition of the pulse. In the most malignant cases the patients would not survive the attack more than thirty-six to forty-eight hours, though some would linger four or five days; when they lived longer than this they would sometimes last as many weeks. Two of apparently the most severe cases we had lingered between death and life for some six months, and both finally recovered.

I would now invite your attention to a brief description of an epidemic that visited our place in the winter of 1863–4. Early in the winter an epidemic of erysipelas made its appearance. Many died, for it was phlegmonous erysipelas prevailing as a malignant

epidemic. In some cases the patient would be taken with a pain in the end of a finger or toe, and die within forty-eight hours without any external appearance of the erysipelas. In others the disease would affect the bowels, brain, or spinal cord, and the patient would die in a few hours. During the prevalence of this epidemic I was shocked to learn that one of our county officials was thought to be dying, and of a new disease. Through the kindness of friends I was invited to see him. His physician had diagnosticated congestive chill. I found him *in articulo mortis.* From his appearance and the history of the case, my diagnosis was cerebro-spinal meningitis. His body was slightly covered with petechiæ, facial muscles contracted, head thrown back, and pupils dilated. Duration of the disease, forty-eight hours. Following this case came others, thick and fast, of as great or lesser intensity, but of the same general character. I will relate the prominent points of a few of them.

Case I. Mrs. B. Taken with a chill Feb. 4, 1864, which lasted twelve hours. As soon as she reacted from the chill her respirations went up to fifty per minute, while the pulse was heavy and sluggish at forty to the minute. She soon became insensible and went into a deep, heavy sleep, from which she could with difficulty be aroused. This state continued until about noon the next day, being the fifth from the attack, when she partially aroused and would answer questions, though not always correctly. Now her pulse became more rapid, her breathing less so; her stomach would tolerate nothing, and the characteristic pea-green vomit occurred. These symptoms continued during the day, with bowels constipated, retention of urine, some opisthotonos, pupils contracted, and partial hemiplegia of the left side, her body slightly covered with petechiæ. Consequently I diagnosed spotted fever, or cerebro-spinal meningitis, and so informed her friends. There was no abatement of the severity of the symptoms until the morning of the seventh day, when I found her apparently much better. The nurse pulled down the bed clothing, and said, "Here, doctor, is your spotted fever, or cerebro-what-do-you-call-it!" And sure enough, what did I call it? A more well defined and plainly marked case of phlegmonous erysipelas I never saw. The lady in attendance said: "Doctor, I thought *you* had seen enough of erysipelas to know it from spotted fever." The neck

of the patient, both back and front, as well as the anterior portion of her chest, was completely covered with an erysipelatous blush, which was persistent for seven days, when it was followed by desquamation of the cuticle, but by no cellular pus formation, of which I had grave apprehensions. After a lingering illness the patient recovered. I had here primarily as well marked a case of cerebro-spinal meningitis as I ever saw (and I have treated a great many cases of it); her symptoms were almost identical with those of others who were at the same time suffering from the disease and dying almost daily.

Case II. The next case was that of Miss R., æt. 21, living but a few steps distant from the house of case I. She too had rigors, which lasted in her case some fifteen hours.

Reaction came on slowly, followed by vomiting, as in the other case; pulse slow and heavy; respiration very rapid; stomach would retain nothing. Hemiplegia of left side on the second day; she was deaf, blind, and speechless; pupils contracted; bowels constipated, and the urine retained. Diagnosis: spotted fever. (This was before my other case "went back on me," as they were attacked at nearly the same time.) As no external erysipelas appeared in this case, my diagnosis stood approved. After many weeks this case also recovered.

Cases III and IV. In the family of Miss R—— two younger brothers were taken down within a few hours of their sister's attack, both of whom had phlegmonous erysipelas of scalp and face, and recovered in three or four weeks. * * * * *

I might multiply cases, but suffice it to say that parallel ones to those cited were numerous, not only in our own village, but all through the adjoining townships. It was no uncommon occurrence for one member of a family to have cerebro-spinal meningitis and in less than twenty-four hours another would be taken down with erysipelas. In other cases the disease would commence as cerebro-spinal meningitis and terminate as erysipelas, (as in the case of Mrs. B——); in still another class a case of erysipelas of face and scalp would be progressing favorably, when suddenly the eruption would fade, and the patient would die with all the symptoms of spotted fever. In others yet, the attack would be upon the extremities, and so severe would be the pain that it was almost impossible to mitigate it; this would continue from twenty-four to

forty-eight hours, when metastasis to the brain or spinal cord would occur, and the patient succumb within a few hours.

Those of my medical brethren who have passed through one or more of those terrible epidemics of erysipelas, which have visited Northern Ohio at several times and in numerous places since 1842, will doubtless call to mind many such cases as I have described.

These cases are of importance, as I believe it is admitted by all writers on epidemic erysipelas, that there are scarcely any tissues of the body exempt from its invasion; that the meninges of the brain and spinal cord, the thoracic and abdominal viscera, skin, muscles, nerves and bones, may any or all of them be the seat of this disease.

Another point favoring the idea of the identity of cerebro-spinal meningitis and epidemic erysipelas, is their frequent simultaneous appearance and identical symptoms of invasion. In 1864, after being deceived a number of times, I was more cautious in my diagnois, for I could not tell, at the onset of the disease, whether it would show itself externally or not. As spring came on, the disease relaxed in severity, but up to the last cases preserved its erratic course as to external manifestations.

From 1864 to 1871 we were free from a visitation from this scourge, but Dec. 9, 1870, it reappeared, selecting as its first victim a little son of my own, aged eight years. He had pain in his ankle. of unusual severity, following a slight chill. I suspected rheumatism, and so treated him for a short time, but on testing his urine and finding no excess of uric acid, and the excruciating pain continuing despite my opiates, I called in my friend Dr. Hard, but we were unable to make a satisfactory diagnosis. The 4th, 5th and 6th days the pain increased in severity until the poor child begged us to kill him and end his suffering. The leg now for the first time was slightly swollen, and the least jar would almost throw him into convulsions; bowels constipated, and urine scanty; pulse nearly normal. On the morning of the 7th day I saw to my sorrow that the meninges of the brain and cord were affected; then followed in rapid succession the symptoms usually attending meningitis, and in about twenty-four hours he expired.

The next case in this epidemic was that of Mrs. W——, æt. 35, living but a few doors from my house, and attacked shortly after my boy. Pain in the ankle, identical in character and sever-

ity with that of my son, until the third day, when her foot and leg took on an erysipelatous inflammation which lasted eight or ten days, when she slowly recovered. This was a well defined case of phlegmonous erysipelas, but had the disease invaded the cerebro-spinal meninges, as it did in the preceding case, instead of coming out on the leg, it would have been recorded as one of spotted fever.

I have not time to make special report of all the interesting cases that fell under my observation last winter, (1871); they were numerous, and of the same general character as those of the epidemic of 1864, and Dr. Hard and myself had the misfortune to treat nearly all of them.

Our cases of pneumonia, several of them after becoming convalescent, suddenly went off with brain trouble, with all the symptoms of spotted fever. This was the case in both epidemics spoken of; and our measles patients fared but little better. Indeed there seemed to be a tendency to brain trouble in every form of disease with which we had to contend. * * * *

ARTICLE III.—*Shortening and Bending in Fractures of the Femur.*
By J. E. NICHOLS, M.D., of Osage, Iowa.

Dr. M. A. McClelland makes a quotation in his article on "*Civil Malpractice*," appearing in the April No. of the JOURNAL, which is deeply interesting to me. It is the strictures of Dr. Hamilton upon those surgeons who claim to have cured fractures of the femur without shortening. That so many eminent names should be ranged upon opposite sides of apparently so simple a question, is startling at first thought, yet a little reflection induces us to conclude that both parties are right and truthful. If a fractured arm may be so carefully cared for, and securely dressed, as to obtain a perfect limb, with no perceptible shortening or bending, it seems as though a leg might occasionally afford equally as happy a result. It is true that the latter is possessed of a larger amount of muscular tissue; but this is hardly sufficient to make all the difference, and does not.

From the limited observations I have been permitted to make,

both in army and private practice, I am convinced that the necessity for lying in bed during the treatment of a fractured femur, and the temptation to use the limb too soon afterwards, are the chief causes of all the deformities. I have not had the facilities for observing variety in these cases that have been enjoyed by many surgeons; but I have had one experience that falls to the lot of few, and is desired by none. It was a fractured thigh occurring to myself.

This case, with an account of a fracture-couch that I invented at the time, was reported in the CHICAGO MEDICAL JOURNAL for December, 1860, if I rightly remember. My preceptor, Dr. O. D. Howell, had taken every pains to secure a perfect limb. I was a student of medicine at the time, and he placed before me every volume in his library that treated of fractures for my study, urged me to lie perfectly still, and insisted that my parents and attendants should keep me wholly immovable while attending to my wants. Besides this, he came to see me once a day to look after extension and counter-extension himself. The result of this zealous care was apparent on removing the splints at the end of seven weeks. No shortening could be found by the most careful measurement. In measuring to the malleolus the whole limb was found to be longer than the other by a fourth of an inch, caused, I have no doubt, by the extension force drawing apart the bones at the knee joint. A starch bandage being applied, I soon began to walk with crutches, finally using only a cane, and as soon as possible I threw that to one side.

It was about eighteen months afterwards, that I reported the case in the JOURNAL, and shortly thereafter Prof. Brainard called me into his office one day as I was passing, and made a thorough examination of the injured thigh. On measuring it, he found, to my great discomfiture, a full half-inch of shortening, and a slight bending backwards of the point of fracture. Several persons of proved mechanical skill had been present at the time the dressing was removed by Dr. Howell, and all of them, after the closest scrutiny, pronounced it a perfect limb. More attention was paid to the matter than would otherwise have been, on account of one of our surgeons recently having had a suit for malpractice to defend.

Up to the time Dr. Brainard made the examination I had not

the least thought that one of my limbs was shorter than the other. From that time until A. D. 1865, it continued to shorten still more; for when Prof. Freer examined my physical status, at this latter date, he not only discovered a lateral curvature of the spine but a shortening of the thigh to the extent of *three-fourths of an inch.* From that date to the present time no further shortening has occurred, as I have just had verified by actual measurement.

Now, with regard to those surgeons who report cures of fractures of the femur without shortening, were not their measurements and records made at the close of their most careful course of treatment, when all they reported was true and correct? While there has been some shortening in nearly all the cases coming under my observation *during treatment,* there has been infinitely more shortening and especially bending after all dressings were removed in the few cases I have been able to keep a watch upon; and I presume the same is true of the others.

To keep a patient off his leg until it becomes so firm that it will not shorten further, would be a confinement that few or none would consent to. During the treatment there is only the force which is exerted by the muscles to overcome, and this, when they are in a state of repose (unexcited) is not so great as many would suppose. The muscles at the instant of applying extension, obstinately resist a great force; but keep up the extension, and as they gradually yield themselves to relaxation, the power of extension is found to be much too great for all that is required of it. After treatment is discontinued, when the limb is first employed, there is not only the muscular force to overcome, but the weight of the body to sustain besides.

A person with a fractured arm will carry it about suspended in complete repose long after he might use it with comparative safety; and when he does use it, the exertion of force is in a direction to prevent, more than to produce, shortening, while the weight of the arm below the fracture offers its gravity to antagonize the muscular force. An arm is more liable to become crooked by premature use after fracture than shortened. But it is an easy matter for most patients to deny themselves the use of an arm until it may be safely employed, while a leg is tested and put into use just as soon as it will bear it without visibly yielding. Why, if a man sprains his wrist he will carry it around for days or even weeks;

but if the ankle is so unfortunate as to become sprained, it will be put to the task of limping down town the very next day and perhaps is walked home on immediately after the injury.

There is no comparison between the two extremities. The attendant conditions of the arm and leg, from the moment of fracture until complete ossification of the provisional callus occurs, are entirely and widely different. The broken arm is taken up tenderly, and cleverly carried by the patient himself, often to the surgeon's office; and from that time until it is cured he acquires a habit of protecting it from the smallest shock even in his sleep; while a broken leg makes of a man a helpless, dead weight, to be moved about and cared for by others. There is a vast difference in the muscular antagonism of a fractured limb when handled by the patient himself and when manipulated by others.

Surgeons cannot be too particular about a bed for their patient with a fractured femur. Such a patient is supposed to have no knowledge of all he must experience and endure in being confined to his bed, and of the necessity of his being patient and immovable, however much his sturdy back and hardy muscles may ache from inaction. But the surgeon is presumed to understand and fully appreciate this; and ought not only to indifferently desire a properly constructed bed, but should insist that one be obtained or improvised for the occasion. He ought not only to advise, but should repeat and reiterate it, that his patient must lie still. When he removes the dressings he should inform his patient that it all depends upon himself as to whether he shall have as good a limb six months hence as now, or a shorter and more crooked one. All these things should be forcibly impressed upon the mind of the patient. The duller the mind the greater need of careful explanations, and of thoroughly "beating in" the instructions. I have often thought that some appliance to aid in walking, on first making use of a fractured femur, as in hip-joint disease, would save many limbs from serious deformity.

ARTICLE IV.—*A Case of Congenital Variola in a Fœtus of five Months, the Mother revaccinated, not having had Varioloid.* By PHILIP ADOLPHUS, M.D., Chicago.

Dr. Gilmore requested me to see a woman residing in Polk Street, who had spontaneously aborted a dead fœtus of five months, which, he said, was covered with small-pox pustules. This case came under my supervision as Sanitary Inspector.

Its peculiarity will at once be appreciated when the woman's history is told. Her husband had had a mild attack of varioloid some weeks previously. Dr. Gilmore revaccinated the woman above mentioned, as well as the other members of the family.

The woman remained well for ten or fifteen days, when, without having had the slightest trace of varioloid, she aborted, and a dead fœtus of five months made its appearance, covered with pustules.

I examined the woman and the fœtus.

The woman had not the slightest trace of an eruption.

The fœtus presented the following appearances: The disease was of the discrete variety; perhaps there were about a hundred pustules over the body. Having been kept from the open air, and bathed in the amniotic fluid, the pustules were whitish and flattened, and resembled the pustules met with on the mucous membrane of the mouth; many had the slight pseudo-membranous disk which covered the pustules, removed, on exposed ulcerated surfaces.

This is a case in which the fœtus only had variola before birth, though the mother had not been afflicted with it.

"Some years ago, a woman in the wards of Professor Tonquier was delivered of a dead child, affected with small-pox, although she had herself been vaccinated."

"The illustrious Mauricean relates that his mother, when in the last stage of her pregnancy, had the misfortune to lose the eldest of her three sons by small-pox, to whom, notwithstanding her condition, she was unceasing in her attentions, and that at his birth, which occurred the day after the death of his eldest brother, he presented four or five pustules of small-pox." (Cazeaux, fol. 566.)

"Ebel, Kesler, Watron, Jenner, Denent, Royer, Bouchut, and Chaigneau, have all seen children born with variola, the mothers being free of the disease. In several of these cases the mothers having been vaccinated were insusceptible to the epidemic influence, yet were able to communicate the virus to the fœtus." (Ibid, fol. 447.)

130 WALNUT ST.

Selections.

On the Disinfection of Air. By A. ERNEST SANSOM, M.D., Lond., M.R.C.P., Physician to the Royal Hospital for Diseases of the Chest, and to the Northeastern Hospital for Children.

Few physicians will be inclined to deny that the material poisons of many of the spreading diseases are capable of being wafted by the air from place to place and from person to person, and that in this manner the maladies of infection are in many instances transmitted. In certain diseases—among which may be especially enumerated variola, scarlatina, rubeola, pertussis, pyæmia, erysipelas, and diphtheria—the subjects are centres whence the evolution of disease-inducing particles takes place. It is obvious that complete isolation of an individual, and removal of all the chance of his directly infecting others, are practically impossible; and, even if such were possible, the disease-poison would yet be cast off to attach itself to any surrounding material, still capable of inducing its effects in the future. It would be a measure of the highest importance if the disease-poison, while existing in, or wafted by, the air, could be rendered inert. This is what I mean by disinfection of the air—the rendering inert of the disease-poison which in some infectious disorders is contained in, and transmitted by, the atmosphere.

Many practitioners have attached an importance to the attempt to disinfect the air poisoned by the emanations of those sick of an infectious disease, as a positive duty; and have adopted various methods of carrying it out. Others, however, urge that all attempts in this direction are futile—that it is impossible to disinfect the air.

Let me discuss briefly what is the nature of the material, which I have for convenience called *poison*, that we desire to render inert. It is ponderable, and obeys physical laws. It often remains active for long periods of time, and hence is unaffected by the frequent

mutations of the atmosphere; but is so minute as to be entirely undemonstrable by any ordinary direct physical means, and undetectable by the highest powers of the microscope. The diffusion experiments of Chauveau and Sanderson have given convincing proof that in vaccinia, variola, and sheep-pox, the poison is a *solid*, insoluble and indiffusible. This conceded, the area of speculation becomes narrowed; for it is impossible to imagine the material an agent merely organic and gifted only with the properties of inanimate matter. If it be an organic solid, neither soluble nor diffusible, how does it interpenetrate the tissues of the body it so profoundly affects? and how can we explain its immeasurable powers of reproduction? It is not my purpose to trace the analogies of the disease-poison, nor follow the evidence which points to the probability that it is to be endowed with the properties of *living* matter. We must admit one of two views—that it is vitalized, or else it acts by an inexplicable process of catalysis; and if the analogy of other so-called catalytic processes be invoked for the elucidation, we shall find that, as science progresses, these become less and less explicable, on the hypothesis of causation by dead organic material in any state whatever. In fact, I believe it to be true, in the present state of science, that no kind of catalytic change of organic bodies ever takes place without the intervention of living things or their active secretions. I will now turn to the consideration of the methods which have been hitherto adopted for the disinfection of air, and the *rationale* of their action.

First come what are called OXIDIZING DISINFECTANTS.

1. Foremost among these are the alkaline permanganates, which, when dissolved in water, it is recommended to expose in open vessels to the air of a sick-room, or to diffuse in the form of spray throughout the atmosphere. The theory is, that these yield up oxygen to the disease-poison, and, altering its chemical constitution, impair its morbific properties. Now it must be remembered, in the first place, that these agents are entirely non-volatile. There can be, therefore, no commingling with the air. The particular portions of air which happen to come into immediate contact with the surface of the solution, no doubt have their contained organic particles oxidized; but how feeble a proportion do these bear to the atmosphere of an apartment! The nauseous products of putrefaction, the permanganates have a remarkable power of oxidizing, and thus rendering inodorous; they are excellent *deodorants;* but I have shown them to occupy a very low place both as arresting putrefaction and as killing the low forms of life. A little consideration must show that agents which operate by oxidation only can have but little effect upon the specific poisons of disease. Imagine the minute particles of disease-poison as it is after a long continued relaxation with large volumes of air, this air frequently containing its special oxidizing constituent—

ozone; or imagine it commingled with vast bulks of water; surely here are enough conditions for its speedy oxidation and destruction, if it be capable thereof. How insignificant must be the superadded effect of the oxidizing permanganate! In whatever bulk employed, the permanganates do not destroy the microzymes inducing putrefaction, existing in the air superincumbent upon them. From my view, therefore, of the nature of disease-poison, I am justified in concluding that the employment of permanganates as means for the disinfection of air is at once frivolous and futile.

2. Chlorine is also an oxidizing disinfectant; but this stands on higher ground as an air-purifier, because its volatility allows it to come in immediate contact with the particles suspended in the air. It is of a very high value as a deodorant; but its action on fermentation, putrefaction, and on the life of a low organism, is but feeble. I have seen fungi living luxuriantly in and amongst the particles of chloride of lime.

3. Iodine is much more efficacious. It is an oxidizing agent, and hence a deodorant; but it is more—it destroys microzymes, and arrests decomposition. It is of very easy application. If placed in open vessels about a room, it evaporates spontaneously, and is a very useful agent for disinfection of air.

4. Sulphurous acid has also a double action; it is a deodorizer, and hence a deodorant; and it is extremely powerful in destroying the life of low organisms. It has been used (the method of its evolution being merely burning brimstone from a metal plate), and, as the records seem to show, with much advantage.

5. Carbolic acid is a volatile agent, easily diffused throughout the air. It exerts no chemical action thereupon, and thus is not a deodorant; but in my opinion it holds the highest place as a disinfectant proper, for it kills the low forms of life existing in the atmosphere, even when it is present in but small proportion.

Starting with the view that the poisons of spreading diseases are minute particles of living matter, I will now turn to some experimental evidence bearing upon the question of the efficacy, positive and relative, of air-disinfectants. Observation of the effects of different agents, when commingled with the air, upon the low organisms met with in putrefactions, must for the most part offer *a fortiori* evidence; for in many infective liquids the presence of the minutest bacteria cannot be detected. Dr. Sanderson has, however, observed bacteria as the characteristic inhabitants of the infective fluids which transmit pyæmia, "and therefore probably the carriers of infection." Without assuming, however, anything further than that the poisons are *living*, we can, I think, obtain valuable analogical evidence; for the influences which kill bacteria, monads, and germs of fungi, could surely with great probability kill also the minuter particles of living matter constituting the infecting poison.

EXPERIMENT I, *showing that Bacteria and Monads are killed by Air which contains Carbolic Acid.*—A maceration of hard-boiled egg in cold water was observed on the third day after preparation. Multitudes of cylindrical and filiform bacteria and ovoid monads were observed in active movement (magnifying power, 500 and 750 diameters linear). A small drop was placed on a slide, and held for thirty seconds over the open mouth of a flask which contained a little carbolic acid. This was compared with another drop uninfluenced. At first, movements in each case were equally active. In about two minutes in the former, movements became more languid, and soon ceased in many instances. Some, however, continued perfectly active. Experiment was repeated with exposure to carbolic acid for one minute. Monads, at first active, began to move in smaller circles, then merely to revolve on their axes, and finally manifested merely a peculiar vibration. A very marked difference was shown between the exposed and the test-drops; in the former, a large number of bacteria were perfectly motionless. Experiment repeated with exposure for three and five minutes respectively: in the latter case, nearly all were dead. It was evident that the superficial portion was so affected as to render motionless all the bacteria; but in the deeper layer some, though comparatively a very small number, manifested active movement.

Observation has shown me that, whilst the effect of carbolized air upon a fluid capable of putrefaction is to prevent the formation of the usually dense follicle formed by dead bacteria, and to kill those which are superficial, it has no influence upon those below the surface level, which continue to manifest active movement.

EXPERIMENT II, *showing that the Germs in the Air, which develop into Fungi, are killed by Air which contains Carbolic Acid.*—Two precisely similar glass flasks were taken, and into each was poured some well boiled paste made from wheat flour. Each was provided with a cork perforated and fitted with tubes for the entrance and exit of air. Over the surface of the paste in A, 500 cubic feet of air were blown by means of a bellows, and then the flask was closed with India rubber tissue. B was treated precisely similar, except that the air first traversed the surface of six drachms of liquefied carbolic acid contained in another small flask. B was subsequently sealed. The loss of the liquid carbolic acid was half a fluid drachm. The flasks were then kept in identical conditions. In flask A, after a few days, little islands of mildew appeared; the paste fermented, and disengaged gas-bubbles; and now (thirteenth day) green mould covers the sides, and large masses of white and green mould are on the surface of the paste. In B the paste remains perfectly unchanged, and now (thirteenth day) presents not a trace of fungoid manifestation. These flasks

were exhibited to the meeting, and it was manifest that, although more than three weeks had elapsed since their preparation, the paste over which carbolized air had been passed, remained without any sign of decomposition; the other presented a mass of mildew.

I have formerly shown that the appearance of penicillium and aspergillus can be entirely prevented by the presence of carbolic acid in the air supplied to the soil.

EXPERIMENT III, *showing that, whilst the presence of Carbolic Acid or Sulphurous Acid in the Air prevents Putrefaction and the concurrent Development of Living Forms, the so-called Oxidizing Disinfectants fail to prevent either.*—Four small wide-mouthed glass bottles, of similar shape and size, were filled with small cubes cut from a hard-boiled egg. They were then placed each in a small trough, into which was poured the following disinfectant agent in each case: A, commercial permanganate solution (red,) 1½ drachm; B, commercial chloride of aluminium, 1½ drachm; C, pharmacopœial sulphurous acid, 1 drachm; D, crude carbolic acid, 11 drops. Each was enclosed under a glass cover, so as to allow free communication of air both with the open bottle and the free surface of the disinfectant agent; but the cover itself was imbedded in cement, so as to exclude external air. At the end of seven days, the covers were removed, and the bottles containing the pieces of egg were each filled up with distilled water which had been well boiled and then allowed to cool. The covers were then reapplied, and the contents were examined three days afterwards. A (permanganate) was extremely fœtid, so turbid as to be absolutely opaque, and with a thick pellicle covering its surface. It teemed with small bacteria, and presented many fungoid cells; and the portions of egg were disintegrated; they were in a state of advanced decomposition. B (chloride of aluminium): very fœtid and turbid, rather less so than A. Every drop examined swarmed with small monads and bacteria. The egg-cubes were broken up, and presented signs of advanced decomposition. C (sulphurous acid): Fluid presented no fœtor; was perfectly transparent. The cubes of egg appeared to preserve their shape and condition exactly as when first introduced. On microscopic examination, many fields presented no trace of motile organism; but occasionally a few active bacteria were met with. D (carbolic acid): Fluid appeared almost clear, and the egg-cubes distinct. Very few bacteria presented themselves, usually five or six in a field; they were of unusual length. Decomposition was almost, but not entirely arrested.

The evidence which I have adduced, I think, fully shows that the presence of certain volatile or gaseous antiseptic agents in the air is sufficient to poison the lowest forms of organisms, to pre-

vent the appearance and development of fungi, and to arrest the putrefaction of organic material. I hope it will be allowed that we who counsel the employment of gaseous or volatile antiseptics for the disinfection of air, do so with the clear understanding of a purpose to fulfill, and a train of analogical evidence that the means are adequate to the end. We believe the subtile poisons of disease to be minute particles of living matter; and that these, given off from a diseased person, can be contained in and wafted by the air. We do not contend that they are equally numerous with the harmless germs of living things which the air normally contains; but they are with them and among them. We show that the presence of antiseptic agents in the air destroys the harmless germs; and we contend that it is probable that it also destroys the disease-germs, which have strong analogical relations with the former, which certainly do not exceed them in bulk, and are probably far more minute than those which are obviously destroyed. As regards the nature of an efficient air-disinfectant, we find that it must be volatile or gaseous, and therefore capable of equable diffusion throughout the air. The non-volatile agents are inert. It is not the action of a chemical agent upon an organic chemical compound which constitutes disinfection, according to our view; but the action of a diffused poison upon the living particles which are suspended in the atmosphere. The agents which I myself believe to be the most efficient are sulphurous acid, iodine, and carbolic acid. Further experience will probably point to many others, but we have these at present to rely upon.

A few words as to the methods of practically employing these various agents:

1. *Sulphurous Acid.*—If the chamber to be disinfected is (*a*) *uninhabited*, all articles capable of being bleached should be removed; orifices communicating with the external air should be closed, and crevices pasted over with paper. A vessel containing burning sulphur should then be introduced, and the door closed. For the sake of safety from the chance of fire by the overflow of the molten sulphur, it should be kindled upon an iron plate, and floated upon a large vessel containing water. It is convenient to place glowing embers on the plate, and then dust over them flowers of sulphur. If the room is (*b*) *inhabited*, the sulphurous acid must be disengaged in less proportion. Dr. Hjaltelin, who has employed it in small-pox wards, considers that its power of exciting bronchial irritation has been exaggerated, and that patients may be accustomed to it in a high degree. It may be employed in the manner before described; the flame of the burning sulphur being extinguished by submersion of the iron plate in the water, if the fumes become too powerful. Or, as employed by Dr. A. W. Foot, flowers of sulphur may be dropped upon a heated shovel,

and carried about the room. The generation of the gas should be repeated three or four times in the day. It is certain, however, that some persons feel it difficult to tolerate the sulphur fumes.

2. *Iodine* may be used as an air-disinfectant in a very simple manner—first suggested, I believe, by Dr. B. W. Richardson. Solid iodine is merely exposed in glass or porcelain vessels in different parts of the room. The iodine vapor is given off at ordinary temperatures. This is a very efficient mode of attaining a constant disinfection.

3. *Carbolic Acid.*—To employ this agent when the room is (*a*) *unoccupied*—communication with the external air being closed—a quantity of the crude acid should be poured into a strongly heated cup, or upon bricks, and left to vaporize. Subsequently, the floors, ceilings, and, if practicable, the walls, should be irrigated or sprayed with an aqueous solution; and the floor scrubbed with carbolic acid or coal-tar soap. Or Savory & Moore's excellent vaporizer may be employed, whereby large volumes of carbolic acid vapor may be disengaged. If the chamber is (*b*) *occupied* by the sick, the vaporizer just mentioned, which is so constructed that the liquefied acid falls, drop by drop, upon a heated plate, should be put in action at intervals two or three times in the day. The objectionable odor of the carbolic acid may be greatly masked by its admixture with oil of wild thyme. It is obvious that this method gives off the carbolic acid too powerfully for constant use. The agent, however, is so volatile as to render itself readily available for maintaining a constant antiseptic atmosphere. It has frequently been used in combination with inert powders for strewing about the room, or has been sprinkled upon cloth or other absorbent materials which have afforded surfaces for its volatilization. These measures, however, have their inconveniences and even dangers; for the strong acid is irritant and caustic, and may inflict serious injury upon those who inadvertently touch it. To obviate the difficulty, I have requested Messrs. Savory & Moore to construct for me an instrument consisting of a piece of canvas in the form of an endless band stretched between two rollers, and dipping into a tin trough to be charged with the acid. By turning a handle at the top, the roller is drawn through the trough, and thus moistened through its whole extent. After it has become partially dry from evaporation, a turn of the handle lifts up a fresh moistened surface. I have used this in several cases, and have found it to act most satisfactorily. I believe, from the data we possess, that in carbolic acid we have the most efficient and most manageable of all agents for the disinfection of air.

Lecture on the Clinical Examination of Children. By D. N. KINSMAN, A.M., M.D., Professor of Diseases of Women and Children, Starling Medical College, Columbus, O.

Patience and care are required in the clinical examination of sick children. They cannot talk in most instances, and you must learn to read the *sign language* of disease.

This language is at once clear and explicit, as well as truthful, a statement which we cannot make, without very decided modifications, concerning the oral description of symptoms by adults.

When once you have learned to appreciate the objective signs or symptoms of disease, among children, you will delight more in the investigation of their diseases than those of adults. They are easily frightened, and this disorders circulation and respiration, hence you cannot commence the examination of a sick child abruptly upon your entrance into its room. There are, however, many things which you can study without contact with the child while it is becoming accustomed to your presence. You can observe the color of the skin. This is waxy in atrophy, tuberculosis and wasting diseases; yellow in icterus and post-natal discoloration. There are irregular patches of purplish hue in meningitis, dependent upon diminished power of the vaso-motor nerves; these are produced on the cheek, forehead and neck by pressure of the pillow or the nurse's arm. There is a general congestion of the face in some cases of typhoid fever in its early stages. A circumscribed patch is seen on the cheek in pneumonia and in hectic fever dependent upon tuberculosis or collections of pus. In pneumonia the patch is livid, in hectic, pink. The skin is leaden in color or blue in chills, livid in croup, capillary bronchitis, œdema of the lungs, and all diseases of imperfect aeration of the blood. A similar color is seen in cyanosis from whatever cause. There is paleness in nausea and shock. The "tache cerebrale," which is deemed pathognomonic of meningitis by Trousseau, may be brought out by a simple scratching of the skin, by the finger nail or a pencil. This is dependent upon the same cause as the irregular mottling of the cheek above described. Vogel attaches no value whatever to this sign, but I have seen it brought out in all its characteristics on numerous patients. The redness to which this name is applied persists for a considerable time after the application of the irritation, and I have never been able to produce it except in meningeal inflammation. There is also the white stripe, which may be produced upon the skin by similar means in scarlatina. There are also peculiar eruptions, which you will learn to recognize, in scarlatina, measles, erysipelas and variola.

The rose-colored spots of typhoid fever, the petechiæ of typhus, scorbutus, and epidemic cerebro-spinal meningitis, are often of great value in directing to a correct diagnosis.

In chronic diarrhœa the skin becomes of an earthy hue.

In cases of sudden fever from various causes the skin in children, after the lapse of hours, becomes covered with sudamina. These are caused by a restoration of cutaneous exhalation; the fluid cannot escape through the scarf skin and it accumulates beneath, raising it in the form of minute vesicles. This symptom is of no importance, except that it shows a relaxation of the skin, and an attempt on the part of nature to resume a normal function, which has for a time been arrested.

The eyes of a child when asleep, in health, are directed upward beneath the upper lid, and the pupils are evenly contracted. The pupils may be dilated, irregular or sluggish in their action from cerebral disease, or from disease located in the structure of the eye itself. They are often dilated to a great extent in the early stage of typhoid fever, and when this occurs it shows that the nervous system is profoundly implicated. Dilation occurs also in the later stages of diarrhœas, when there is great exhaustion. The eyelids are also partially open during sleep, in the later stages of exhausting diseases, as the result of loss of muscular tonicity in the orbicularis muscles. In the same cases there is an accumulation of sebaceous matter over the cornea, and a great loss of sensibility, for flies may crawl over the eye without any apparent inconvenience. These symptoms are indicative of great danger.

There is photophobia in meningeal or cerebral disease, also in phlyctenular conjunctivitis. Tears make their appearance about the fourth month, they disappear during severe disease, and their reappearance is an indication of improvement.

Respiration in diseases of the lungs becomes more frequent. The normal rate of respiration in children, when asleep and at rest, is about thirty per minute; when awake it sometimes rises as high as eighty per minute. The mere rate of respiration, since it is subject to so great variation, is not of any special symptomatic value. Respiration, however, is interrupted in cerebral disease, and is a symptom of great value. In croup, inspiration is noisy; in asthma and emphysema, expiration is noisy. Respiration is sighing and slow in nausea.

Cough is another symptom to be referred to the respiratory organs. It is hoarse and ringing in the commencement of croup, becoming extinguished as the disease advances; spasmodic and subintrant in pertussis; constant and synchronous with each expiration in some cases of irritation of the laryngeal nerves.

Cough sometimes exists as a symptom of worms in the intestines, and of jaundice; in these cases it is of reflex origin.

The cry of children has been minutely studied by Billard, and, while I cannot subscribe to all he has written upon the subject, there are two cases in which the cry has diagnostic value. Skoda, I think, first clearly pointed out the difference of the cries in the delirium of typhoid fever and cerebro-spinal meningitis. In

typhoid fever the cries are those of constantly changing fancies, and may be changed by external impressions, while in meningitis the cry is a constant repetition of the same word, at intervals more or less regular, with an unvarying cadence.

There is also a class of symptoms belonging to the motor system. The movements of the hand to the head, the ear, the mouth, the throat, are indications of disturbance in the several localities mentioned. In some cases of cerebral irritation and typhoid fever I have observed that the hands are kept constantly in contact with the genitals, and I have learned to regard it as a grave symptom, and that to a great extent it is involuntary.

Jactitation occurs sometimes towards the close of exhausting diseases.

The persistent flexion of one extremity points to lesion in the brain. Flexion of the thumbs or toes, contractions of the eyebrows, grinding of the teeth, and startings, are often the prodromes of general convulsion. Contraction of the lower extremities, with crying, writhing and twisting of the body, are symptoms of the colic, vesical irritation, rectal tenesmus, pricking of pins, etc., and a constant pulling at the penis in young boys, sometimes is seen in calculous disorders, and in congenital phymosis.

There is retraction of the head in meningeal disease, irregular muscular contraction without loss of consciousness in chorea, boring of the head into the pillow in cerebral irritation and rachitis.

Apathy and quietude in a child are suggestive of rachitis when there are no other indications of disease, and when this is joined to sweating about the head and general soreness, the diagnosis is positive.

Nearly all the above symptoms may be made out without touching the child, and many of them can be ascertained without waking it, if it is asleep, and you should never wake a child till you have noted the pulse, respiration and temperature, if you find it asleep.

The frequency and force of the pulse in young children has not the value for us that it has in the case of adults. It is very difficult for us to ascertain the average. An intermittent pulse points with great certainty to disease of the brain, and an extremely frequent and feeble pulse is the forerunner of dissolution.

With the digestive organs many symptoms of value are connected. Vomiting may be incidental to the conformation of the stomach, or a symptom of disease. It is one of the first symptoms of scarlatina, variola or intussusception; it accompanies abdominal inflammations, whooping cough, and sometimes pneumonia. It is one of the most rebellious symptoms of meningeal inflammation; in this disease it is forcible, and has been compared to the action of a force pump. The abdomen is tumid and distended in diarrhœa, but retracted and boat-shaped in meningitis. It fluctuates in dropsy and purulent collections in the peritoneal cavity, is

nodular from enlargement of mesenteric glands. In cases of intussusception the coils of the intestines roll beneath the surface like a mass of writhing snakes.

The stools should be carefully examined, for from them you can often derive indications for treatment.

The presence of undigested masses of casein or other albuminous matter tells you the disorder is in the stomach digestion. Excessive watery discharges in summer point to sympathetic paralysis. Worms and their ova will also indicate to you the necessity for their expulsion.

Examine the mouth and fauces, for evidence of disease, for it is in this locality where we commonly first recognize the presence of pseudo-membranous and diphtheritic deposits. The urine should be examined for sugar, albumen and urinary deposits; also for casts of tubes, and renal and vesical epithelium.

There are many things to be learned by inspection, and in obscure troubles it should never be neglected. Needles have been found driven into the brain through the fontanelles, perforating the chest and the abdomen, and plunged into the liver.

One of the earliest evidences of diseased action is found in variations of temperature. The mean temperature of newly born children is a little less, say one-half a degree, than in adults. In scleremia there is a reduced temperature from the beginning.

The production of heat in excess of the natural standard is the result of several factors. There may be increased metamorphosis of tissues; impressions upon the vaso-motor nerves, and the action of poisons upon the blood, as in zymotic diseases, where we infer an action similar to a ferment—all these may be capable of modifying the heat-producing processes; but the subject as yet is to be more fully investigated before we can be fully enlightened. This much we know, there seems to be a fully established law that according to the height of the temperature above 98.40° (Fah.), the gravity of the case and its danger is increased. Adults may have a range of twelve degrees. In children, Roger has recorded oscillations amounting to over eighteen degrees. In intermittent fever there is a great rise of temperature during the febrile paroxysm, often to 104° or 106°, but it speedily begins to decline. In typhoid fever the temperature rises to 102° early in its course, and then by about half a degree or a degree to 104°, which point it does not often pass in children, unless there are complications in the lungs or peritoneal cavity. In diseases of the respiratory organs, when the parenchyma of the lungs is affected, the temperature is notably higher than when the mucous membrane alone is affected. In tubercular meningitis there are great ranges, as well as irregularities in the course of the temperature; the maximum recorded is 108.5°, the minimum 95°. When the substance of the brain is affected, the rise scarcely ever exceeds 101°. A pulse rate

increased to 130 or more per minute and a temperature of 102° is prognostic of meningitis, while a pulse rate of 110 to 120, with a persistent temperature of 104°, points to typhoid fever as the disease.

These general facts will enable you to perceive something of the importance of a study of the temperature. For its full discussion I must refer you to the work of Seguin, and to the works on practice of medicine.

Auscultation and percussion should be practiced in cases of suspected disease of the lung. Auscultation first, and usually you can learn all you wish to know by placing the ear to the back of the chest. The general signs are the same as in adults, except that the vesicular murmur is more distinct or "puerile." By crying and expulsive movements the child can extend the range of dullness fully three inches, by the raising of the lower and abdominal organs against the diaphragm. Remember this, or you will diagnose a pneumonia in a crying child when none exists.

Percussion has not the value in children which it has in adults, because they are more restless, and by their crying obscure all true perception of percussion sounds.—*Kansas City Med. Journal.*

Practical Points in the Medical Care, and Nursing of Children.
I. *Natural Feeding.* By JEROME WALKER, M.D., Physician to the Sheltering Arms Nursery, Brooklyn.

Although experimental researches and practical conclusions are demanded in these times, and the substitution of positiveness for uncertainty is carefully being attained in the different branches of medicine, yet the absolutely *necessary* points in the medical care of children are only *tacitly* acknowledged by the majority of medical men to be important, for the carrying out of these points requires "too much care and time." Medical men may admit the force and truth of certain conclusions, but fail to make them of service because great patience, much study, untiring energy, and absolute love of children, are essential to their proper care.

In an effort to systemize and to obtain rules for my own guidance, certain deductions forced themselves upon me, and I was surprised and pleased to find most of them arrived at, and some enlarged upon by Eustace Smith, of London, in his admirable work on the "Wasting Diseases of Infancy and Childhood." As this work is the only one which enters into anything like a full discussion of the "points," I mention the fact, that I may not be suspected of plagiarism.

Some time since, the following questions were sent to Drs. Jacobi, J. Lewis Smith, E. S. Dunster, and J. B. Reynolds, men who from large experience, opportunities for observation, and particular attention to the care and treatment of children, were believed to be reliable exponents of all ascertained facts—viz.:

1. If mother and child *seem healthy* and child is being *nursed*, at what time do you advise the use of other food than mother's milk?
2. If other food be used, *what* is it, *how prepared* and *what* are its *ingredients?*
3. When a nursing woman becomes pregnant, do you advise artificial feeding?
4. State results of trials with so-called substitutes for mother's milk.
5. Is *dentition* the signal for weaning, or the employment of solid food?
6. Do you insist upon stated periods for nursing or feeding, as the case may be, during infancy?
7. In case of *weakly* children, or when it is thought best that the mother should not nurse, do you advise wet-nursing?
8. Is the milk of wet-nurse to be of the same age as child has been accustomed to?
9. State experience with milk older or younger.
10. State preference for one animal's milk over another.
11. Opinion of condensed milk.
12. In dilution of milk, how much water do you use?

The substance of this paper (with others which will follow in due course), shall be the consideration of the above questions. For the purpose of impressing more forcibly the "practical points," on the minds of my readers, these "points" will be discussed under the following headings:

1. *Natural* feeding of children.
2. *Artificial* feeding of children.

NATURAL FEEDING.—Physicians, as a rule, believe with Dr. Jacobi "that in *theory* everybody agrees if it were only on philosophical or religious principles, that babies ought to be reared on breast-milk." The inconsistent *practice*, so common in all stations of life, may be traced oftentimes to the careless teaching, or the absence of teaching, of medical advisers. With the public and the profession the extra care and attention demanded by the weakness and tenderness of infancy, give rise, first to carelessness, next uncertainty, and finally recklessness.

Much has been written upon the importance of natural feeding. Such works as those of Eustace Smith, West, Vogel, Bouchut, Meigs, and Pepper, and lectures thorough and systematic as those

of Dr. Jacobi, *must* help to clear away the indifference so prevalent. "Every woman," says Stoll, "who can bear a child can suckle it, at least during the time she keeps her bed." "This short time," writes Eustace Smith, "is an advantage to the infant not to be despised. All mothers ought to try to nurse, partly for their own sakes, and partly for the child's." "How short soever the period may be during which the mother is able to suckle her child, it is very desirable that she should nurse it during that period, and also that her milk should then constitute its only food; for this secretion is especially adapted to the feeble powers of the digestive organs soon after birth, and it is far from easy to find a substitute," says West. Cazeau gives certain vague objections to mothers nursing, viz.—"Any formal contra-indication, such as a very lymphatic constitution, presence of skin disease, or of predisposition, hereditary or otherwise, to phthisis," and the ease with which formal contra-indications are thereupon seen, gives an impetus to unnatural feeding.

The fact is, most of us are too apt to allow our sympathy, from fears of supposed injury to mother or child from nursing, to take the place of calm, deliberate judgment, forgetting that experience has taught, that with children who may from necessity be compelled to live on artificial food, those generally survive and grow who have had a chance at breast-milk, for even a short time only, following birth. I believe this to be a generally accepted fact, especially *noticed* in institutions for the young.

The *prohibition* of nursing from birth, unfortunately must be left to the judgment of each individual practitioner. The causes for a *cessation* of nursing are plainly—its bad effect on the mother, the poorness and insufficiency of her milk, and the unsatisfactory condition of the child, as shown by its general appearance, mode of suckling, and gradual decrease in weight. The first is apparent to every one, the second can only be determined by careful comparison between healthy and sickly children, and the third ascertained by any decided departure from results of experiments obtained by Chaussier and Quetelet, viz.: average increase in weight for first 9 days after birth, ¼ lb., first 14 days, ½ lb., and probably not reaching 1 lb. till 28th day; and of those made by M. Guillot at the Foundling Hospital, Paris, before and after nursing, when he finds that 2¼ lbs. of milk, avoirdupois, is the smallest quantity that suffices for the nourishment of a healthy infant during the first month of its existence, or 2½ ounces for each act of suckling.

E. Von Siebold found "that the weight, for a few days after birth, diminished."

Though these experiments are necessarily limited, yet the rough approximation has its value.

EXAMINATION OF MILK.—An examination of the milk is necessary, either in the selection of a wet-nurse, or in deciding upon the cessation of nursing for the mother, but the health of the two respective mothers and their children forms the truest guide. Four points are to be considered in this examination, and as to the effect of the milk upon the child:

1. Its suitableness and sufficient quantity.
2. Its suitableness and insufficiency.
3. Its poorness and abundance.
4. Its poorness and scarcity.

Each condition gives rise to certain phenomena in the child.

With the quality and quantity of the milk—as they should be—the child is a healthy one, i. e., with limbs rounded and well filled out, the skin clear, fresh looking, and of a light rosy tinge. Such a child sleeps a good part of the time, and when awake, is bright, nurses easily and quietly, and when through nursing leaves the breast. During twenty-four hours the bowels move two or three times, and the motions are copious and of a bright yellow color.

"When the food is suitable but insufficient, the child loses the plumpness, the muscles become flaccid and soft. His face is pale and thin, bones become prominent. He is peevish, takes the breast, at first ravenously, and then at intervals stops to cry piteously. The skin is moist and cool. The fontanelle level or slightly depressed. At night he is very fretful. In the day time may lie quietly but sucks his fingers." There is an irregularity in the fecal movements, as to the time and character of the motions.

"With the food poor but abundant, the child is usually very quiet and drowsy, not uncommonly sleeps at the breast." Eustace Smith believes this last to be a sure sign that the milk is thin and serous. "The bowels are usually costive, and the motions rather solid although otherwise natural."

When the fourth condition is present, "we find the symptoms of defective nutrition combined with the symptoms of indigestion. The child begins to waste, grows dull. The skin, at first moist, then becomes dry, except about the head. Fontanelle is depressed. The face and body, at first pale, assume a dirty yellow hue, which may or may not disappear. The bowels irregular at first, constipation alternating with diarrhœa, then diarrhœa is constant. Flatulence is common. Thrush, inflammation and ulcerations of the skin often appear. Ulceration of the corneæ may occur.

Now that the condition of the child has been considered, let us turn our attention to the milk more especially.

What is healthy milk and what unhealthy?

HEALTHY MILK.—The composition of healthy milk, according to Bouchut, is:

	At 1st Month.	At 24th Month.
Sp. gravity,	1033.11	1030.81
Water,	872.99	876.55
Solid constituents,	127.61	123.45
Sugar,	43.13	41.33
Butter,	34.05	41.47
Casein,	48.26	37.32
Salts,	1.57	1.33

Lehman says, "women's milk in general is of more bluish white color than cows or any animals, is sweeter, has a strong alkaline reaction."

Simon found by analysis made every ten days for six months, that at the commencement of nursing, casein is at its minimum, then rises to nearly a fixed proportion, the salts increasing with it. Second, sugar at its commencement is at its maximum, then diminishes. Third, butter is variable. These analyses agree with those of Vernois, Becquerel and others. Pelegot and Reiset found more fat generally toward the close of nursing. These practical conclusions form the guide in the preparation of any food for infants.

Tests.—To prove the properties of milk, certain tests are useful. Those of Vogel are explicit and concise, viz.:

1. Fill graduated galactometer with milk, let it stand covered for twenty-four hours, then the cream should at least comprise three lines of the glass in thickness.
2. Test with blue and yellow paper.
3. Taste, which should be insipid and slightly sweet.
4. The microscope.

"If nurse has been confined more than eight days, colostrum corpuscles and epithelial cells should not be present at all, or in small quantities, milk globules of unequal size or too many." "In pure milk," says M. Doune, "nothing but milk globules are seen." The same writer also shows human milk to be alkaline. I have not been able to find any reported case of acidity in human milk.

UNHEALTHY MILK.—Unhealthy milk may be inferred from its scarcity of cream, change in color and taste, generally slight, but principally from microscopic examinations.

In 1853 Vogel* first discovered vibriones in human milk. There was no fermentation, as the milk was alkaline. The child had all the appearances produced by malnutrition. From 1854 to 1861 Dr. Gibb,† in an examination of many hundred

* *Lancet*, 1854.

† Archiv. of Med., No. 7, on the saccharine fermentation of milk in the human breast.

specimens of human milk, found two genera of animalculæ where the general health was disordered during lactation, or where lactation was prolonged, or an insufficient quantity of milk secreted, found in all periods of lactation, milk varying in color, sp. gr. 1024 to 1035, and almost invariably neutral or alkaline. The children, as a rule, were badly nourished. The Doctor believes that the vibriones themselves are not hurtful, but produce a bad change in the milk. Inflammatory globules have been found by Lehman and others, when there was any acute affection in the mother. Vernois and Becquerel* found "an excess of butter or caseine always to accompany an ill state of the nursling."

We are then to decide upon the continuance or cessation of nursing by the mother, and in the selection of a wet-nurse as well, first by tests, as before described; second, the history and present constitution of the mother; third, the condition of the child.

No writer, as far as I can ascertain, indorses the assertion of M. Doune, "that there is an almost constant relation between the composition of the fluid during pregnancy and that of the milk afterwards." Cazeau thinks "that the results obtained by M. Doune may enable us to form a *probable* diagnosis as to what each woman's milk *is to be* in quantity and quality."

If the milk after examination is found to be simply poor and small in quantity, then generous diet, suitable tonics, attention to hygiene, use of warm drinks, especially at night, a moderate use of malt liquor, applications of electricity, poultices of castor oil plant leaves to the breasts, and the use of the fluid extract of the same internally, as recommended by Dr. Wm. Gilfillan, of this city, are often efficacious. To these means may be added, as a drink through the day, or better still, on going to bed, and through the night, if necessary, a very pleasant mixture of tr. ginger (or Brown's ess. of Jam. ginger), and sweetened milk; about one teaspoonful of ginger to tumbler of milk, and sweetened to taste. The use of the air-pump, as designed by the patentees of the so-called air-treatment, is probably useful. Cazeau found one nurse whose milk was sensibly increased several times by eating ground lentils. Vernois, Becquerel, and others, found that a vegetable diet made the milk richer in butter and sugar, while the solid constituents were increased by mixed food.

The suggestions of Eustace Smith are valuable. "If the mother has been over-stimulated by a too rich diet, diminishing the quantity of her food, and the administration of a gentle saline purgative, generally produces a plentiful supply of milk. Feverishness, from whatever cause, will necessarily tend to diminish the lacteal as well as the other secretions of the body.

* April, 1853. *Brit. and For. Med. Review.*

In such cases, therefore, increasing the quantity of food would have an effect the very opposite of that which it is intended to produce. *All* of the means in our power should be faithfully tried before we take upon ourselves the *great responsibility* of changing the food of infants.—*The Sanitarian.*

The Influence of Uræmic and Alcoholic Poisoning on Testamentary Capacity. Read before the New York Medico-Legal Society, by STEPHEN ROGERS, M.D.

Near the close of the year 1869, E. I. C. was quietly, if not clandestinely, married to a man whom, report says, her education, religious and secular, would have, in the ordinary course of events, led her to shun, rather than to love.

A key to the secret of this untoward occurrence is furnished by accumulated evidence, to the effect that she was an incorrigible and hopeless inebriate. Though trained, and fairly educated, in one of the best schools for girls, this vice of drunkenness seized her soon after her return home from school, and, as a consequence, she soon became the cause of constant and harassing care to, and her habits were the bane of the last days of her aged and widowed mother, who died about the date above given, leaving this only child sole heir to a considerable property.

About the time of the mother's death, this rich and dissolute girl was induced to marry, under the circumstances already stated. Rumor attributes the marriage to a necessity arising from antecedent illicit familiarity between the parties, favored by the intemperate habits of the girl. However this may be, there is no question that they were married, and the following unusual history commenced: Not long after her marriage, it appears in evidence, she became the victim of attacks which, from the general description given of them by various witnesses, would appear to have been of an hysterical character, more or less modified by her intemperate habits, for these she continued to practice after her marriage with even less restraint than before.

During these attacks she screamed, talked incoherently, and threw herself about so violently as to require control, and she is said to have recovered from them after a few minutes, or at most a few hours, with no perceptible impairment of her intelligence. It also became apparent, not long after her marriage, that she was pregnant, to which fact we may justly attribute a portion of the general and violent nervous perturbation which she at this time suffered. This perturbation was manifested, as before stated, in an especial manner by the attacks, or spells, or fits, or paroxysms,

as they are variously named by the witnesses, whose principal features I have already mentioned; and, except these, no alarming symptom occurred to her till about eight months after marriage, though the evidence is conclusive that she had, before this date, suffered many of the aforementioned attacks, and had more than once been on the verge of true delirium tremens. Either from the fear that some of those paroxysms might terminate fatally, or that her uncontrolled intemperance might induce disease which would suddenly terminate her life, or from some other fear or motive, her husband and her father-in-law, who were associated in business, went, unknown to her, some months after the marriage, to an attorney, and requested him to draw up a will for her, at the same time giving him instructions as to its provisions. The will was accordingly prepared, and in such terms as to be almost exclusively in the interest of the two parties who had ordered it drawn. They took it, carried it home, and laid it away in a trunk, as the evidence shows. There is no evidence furnished to prove that the alleged testatrix ever read, or heard this paper read, except the declarations of the parties who caused the will to be drawn. It is from them alone that we hear that she even knew of the existence of this paper till almost the hour of her death. Her husband, who, by its terms, was sole heir to her estate, alone says she approved it after reading it, and still months passed, and it was allowed to lie away in his trunk unexecuted and unwitnessed.

Thus stood the affairs of this case when, on a Monday, this alleged testatrix exhibited signs of the approach of one of her accustomed ill-turns, which, as already said, the evidence all goes to prove, were the result of alcoholic excesses on a nervous system, rendered more susceptible by the pregnant state. On the following day, Tuesday, she was unusually ill, suffered a number of the paroxysms mentioned, and drank a considerably large amount of alcoholic liquor. She was still worse the following day, Wednesday, but apparently not too ill, in her husband's opinion, to render him incompetent to prescribe for her, though a physician had visited her both Tuesday and Wednesday. On Thursday morning she was so much worse that a second physician was called, who reached her about noon, and found her so seriously ill as to give him great solicitude. He found her suffering nausea and frequent vomiting, insatiable thirst, and a sense of burning at the stomach, great restlessness, getting out of and into bed, muttering, and often noisy delirium, with hallucinations of sight and hearing, though she would obey orders, and reply to simple questions, apparently rationally.

Even up to a very few hours before her death, which took place some eighteen hours after the above visit, when spoken to she would respond, and so far as could be seen, rationally, but in a moment she would again relapse into wandering delirium. It also

appears that, up to within a short time before her death, she was able to and did rise from her bed and walk about the room—a tendency her physicians say they tried to restrain, knowing that such efforts, in her exhausted condition, might suddenly destroy her life. There is no evidence I can find that she suffered any paroxysm to which the name of convulsion could be properly applied, during the last two or more days of her life.

A consultation, attended by three physicians, was had at eight o'clock on Thursday evening, and resulted in the conclusion that, among the complications of the case, there was *uræmia*.

We are not, however, informed if there were any dropsical swellings, œdema of the lungs, or if there had been any headache, or even if the urine had been examined by the physicians in attendance. On the contrary, they state distinctly that they did not examine it, but one of them gave some of the urine to an outside party, who testifies that he examined it and found *purpurine*. It is frankly acknowledged by the attending physicians that, up to the hour of the consultation, they had not arrived at a definite diagnosis of the case, and, even after the diagnosis agreed upon at the consultation, there seems to have been much doubt as to its correctness, for, either to ascertain a cause of death, or to corroborate an opinion formed before death, an autopsy was held. In the meager records of this *post-mortem* examination given us, nothing is said of any organ till the stomach is reached, and of this it is stated, that it was found somewhat congested, not much changed from health. It is said that the kidneys were both fatty and the liver extremely so. A dead fœtus was found in the womb, and one witness ventures so far as to give his opinion that it had been dead about forty-eight hours. This was of course a very hazardous opinion, if we are to judge it in the light of the fact that there does not occur a particle of evidence that the condition of the fœtus was even considered before the death of the mother. The only testimony I can find, which even alludes to the condition of the fœtus before the death of the mother, or to the question of parturient pains, is an equally hazardous statment of one medical witness to the effect that, if the fœtus had died three or four days before the mother's death, labor-pains would have come on earlier. Nothing is better known than the fact that a dead fœtus may and often does remain in the womb for long and indefinite periods without the occurrence of labor-pains. It does not appear in evidence that the alleged testatrix in this case had labor-pains at all. However, the conclusion from the autopsy was, that death resulted from uræmia, caused by Bright's disease of the kidneys, though no pathological record is offered in support of that *post-mortem* diagnosis, except the vague declaration that the kidneys were fatty, a condition often associated with fatty, light-colored livers in habitual drunkards, but not by any means necessarily accompanied with notable functional derangement of such kidneys.

On the other hand, the whole history of the symptoms of the case, as detailed in the evidence, is quite inconsistent with this eleventh-hour *post-mortem* diagnosis. The medical witnesses agree that the condition of the blood known as uræmia, caused by disease of the kidneys, often produces paroxysms, variable in character, sometimes maniacal convulsions, and sometimes, instead, a gradually deepening state of coma. But, to account for the extraordinary and unprecedented fact that in this case the alleged uræmic paroxysms did not induce coma and abolish all sane consciousness, notwithstanding the case terminated fatally, one of the principal medical witnesses employs the following notable language, applicable to the condition of the patient eight or nine hours before death: "It was concluded that she was suffering from uræmia, and it was a subject of remark that the case was exceptional, inasmuch as her mental operations were so clear; it is quite usual in a case of that kind that the contrary should be the case." As a support to this conclusion, one medical witness is reported as saying that he had seen many cases of Bright's disease of the kidneys, and that he had not found the mind generally affected. It is perhaps too much to expect of a judge, or of lawyers, that they should have deemed it important to ascertain if this witness had had a tangible and reliable record of a case of Bright's disease of the kidneys, causing uræmic paroxysms in a woman far advanced in pregnancy, and yet which did not, at eight hours before the fatal termination, affect her mind.

I challenge the medical world to produce the record of such a case. If we exclude a few cases in which the pregnant woman, not even suspecting her imminent danger, is suddenly seized with uræmic eclampsia and her life destroyed in a few hours, no case of uræmia terminates fatally in the pregnant woman without seriously affecting the intellect many hours before death; in other words, fatal cases of uræmia in pregnant women always affect, more or less profoundly, the mental power.

The history of this case, and the pathological history of uræmic *eclampsia gravidarum*, fail to furnish the slightest grounds for the opinion that death was caused by uræmia. Had we even the usual local or general œdema attending Bright's disease, or its fibrine cylinders, and fatty, degenerate renal epithelium in the urine—which we have not—the symptoms of this case, as set forth in the evidence, would be conclusive against the theory of fatal uræmia.

The evidence certainly shows that, from Tuesday to after twelve o'clock Thursday night of the same week, this woman's condition was one of nervous agitation, insomnia, and finally of busy, muttering, and talkative delirium, from which she could be momentarily aroused by speaking to her—a condition rarely or never seen after the development of fatal uræmic eclampsia, and certainly never within twelve hours of the time of death.

Due regard for the well-known intelligence of the physicians in attendance and consultation, forbids the conclusion that, even at the consultation on Thursday, nine hours before death, there were not very grave doubts as to how much of a part uræmia played in the production of the symptoms. Had there been no such doubts, the line of treatment, approved by the best authority, would have been (what it was not) purely obstetrical, and obstetrical counsel and means would have been resorted to, which was not the case, so far as the evidence goes. Now, as no such measures were taken, and, so far as the evidence goes, the uterus did not make the slightest spontaneous effort to expel the fœtus, it is simply fair to conclude that the diagnosis of uræmia did not take very deep hold on the physicians of the alleged testatrix before her death. Had they adopted that diagnosis, they could hardly expect to be excused for abandoning the patient undelivered—as they did—some five or six hours before her death. Then the practical failure of three intelligent physicians to decide that uræmic poisoning existed in this case during the fatal illness, as well as the symptoms attending the "spells" or "paroxysms" suffered during the last year of life, disproves the theory, which has only the support of a most imperfect and unscientific *post-mortem* examination. Like too many *post-mortem* conclusions where toxical agents have destroyed life, this examination, according to all the evidence, was totally fruitless of truthful results. It did not demonstrate the cause of death.

Having discussed the improbability, if not impossibility, that uræmic poisoning was the cause of death in the case, I will now inquire into the other possible causes of that event.

If the testimony is correct—and it is so abundant both on the part of her medical attendants and others, and so corroborative one of the other, as to be convincing—the attacks from which she suffered during most of her married life, called "spells of fainting," or "spasms," by the witnesses, are very accurately described in most essays on hysteria. The testimony does not inform us whether the alleged testatrix had these paroxysms or fits before she became pregnant. This, however, is not to be regarded as of importance, it being a well-known fact that it is common for women to suffer this and other forms of nervous attacks, for the first time, after becoming pregnant. There was, however, in this case an especial cause for these nervous attacks—a cause which fortunately is not very frequent among our young and recently married women. I allude to the excessive use of alcohol. It is a fact, well understood by persons conversant with the subject, that habitual inebriety is a fruitful cause of hysterical attacks in women who have no hysteria when sober. On this account alcoholic hysteria is regarded as distinct a form of this neurosis, as alcoholic epilepsy. There is, besides, very conclusive evidence in the case, that this woman had often, during her married life, suffered other

results of the excessive use of alcohol than fits of hysteria. By his frequent experience with the attacks, or fits, or paroxysms, of alcoholic hysteria, if not delirium, suffered by his wife, it appears the husband had found out the value of laudanum. It is distinctly declared, by as respectable a witness as the case furnishes, that by order of the husband, she bought ten cents worth of laudanum for the deceased on Wednesday before her death. It is not proved that she did not take it, and the attending physician contradicts the husband's statement that it was ordered by the physician.

The apothecary who sold this laudanum says that the amount equals twelve doses of opium for the adult, or from twelve to eighteen grains. There is no reliable evidence to disprove that, whatever the physician may have ordered, she took, in addition, this twelve to eighteen grains of opium, and an indefinite amount of alcohol, during Wednesday and part of Thursday.

Now, if the husband had not regarded himself as skilled in the management of the wife's attacks, whatever they may have been—and nothing but experience or special education could have created that self-confidence—he must be regarded as careless, or daring, or criminal, for having assumed to administer a potent drug on his own responsibility; for one of the physicians in attendance swears that, on the morning after this laudanum was purchased, and probably given, he and a neighboring physician found the patient in so critical a condition as to induce them to seek counsel. Taking the most generous view of the facts, in behalf of the husband, we must suppose that his experience with laudanum in her accustomed attacks had given him so much confidence in its efficacy that he was unprepared to appreciate the graver symptoms of her final attack. He probably was unaware of the immediate danger; having seen her recover from so many spells, he presumed she would from this one.

This is the most liberal interpretation of his behavior. But returning to her symptoms, we find them enumerated as follows:

Much nervous and muscular agitation, restlessness, and insomnia; vomiting and insatiable thirst, with a burning pain at the stomach; hallucination of sight and of hearing; muttering and talkative delirium, calling the names of persons absent or dead, and yet replying promptly to questions; obeying the requests of the physicians, and in a moment forgetting them; and finally her ability to walk about the room till near the hour of her dissolution.

It would appear that few experienced medical men could mistake the significance of that array of symptoms, especially when occurring in a person of the admitted habits of this alleged testatrix. The following lines from the great master of clinical description, Dr. Thomas Watson, most aptly and fully hit the symptoms presented by this case:

"If you question the patient about his disease, he answers quite

to the purpose; describes in an agitated manner his feelings, puts out his tongue, and does whatever you bid him; but immediately afterward he is wandering from the scenes around him to some others that exist only in his imagination. Generally his thoughts appear to be distressful and anxious; he is giving orders that relate to his business to persons who are absent, or he is devising plans to escape from some imaginary enemy; he fancies that rats, flies, mice, reptiles, or other objects, are running over his bed, or that strangers are in his room. He rises to look suspiciously about the room, or to leave his bed, but is readily induced to lie down again.

"Upon inquiring into the history of the patient, in a large majority of instances you will find that he has been an habitual drunkard, and very frequently that for some reason or other this habitual stimulus has been diminished or taken away. Sometimes, however, it comes on in those who are perpetually fuddled, even though they have not intermitted their usual indulgence in drink." —"*Practice of Medicine.*"

The burning pain at the stomach, vomiting, and thirst, which were so marked symptoms in this case, are often absent in alcoholic delirium. But as relates to the mental phenomena, Dr. Watson's general description of delirium tremens comes wonderfully near to meeting every symptom shown by this alleged testatrix during her last illness.

It will be difficult, if not impossible, to account for her symptoms upon any other supposition than that they resulted from alcoholic poisoning. If that cause be admitted, it is very manifest that she was quite *non compos mentis* for at least two days preceding her death. All her declarations, expressed wishes, as respected persons and business, after Wednesday morning, were in all probability mere ravings, and totally unreliable. Among those declarations should probably be placed, that her husband had injured her by striking her in the abdomen, causing a black-and-blue stain. Though two female witnesses testify to this declaration, and to having seen the bruised spot, it is not by any means improbable that they themselves asked her if the bruise had not been made by the husband, to which she answered, "Yes." Persons under this state of mental derangement need only the suggestion, to charge anybody with any act.

The husband denies that the declaration has any foundation, and he is, under the circumstances, by far the more reliable.

The cautious testimony of the physician, who saw her between eleven and twelve o'clock Thursday night, is in all probability the most favorable representation that could be made of her intellectual condition. He declares, under oath, that she was not, in his opinion, able to fix her mind long enough upon any one subject to dictate any article in writing.

It is in evidence, however, that she would reply to questions

promptly, and apparently rationally, and would do, so far as she could, anything her physician or friends desired her to. We have seen that such a condition is very far from indicating rationality. In certain states of alcoholic delirium, responses to all manner of questions are obtained. Whether asked if they wish to die, or wish a drink, such persons are very liable to give the same reply —"Yes," or "No;" and the same if asked if they wish to see a priest or a physician. It may, hence, be readily comprehended how the subject of such a condition of mind may be brought to reply "yes," to any number of questions relative to the distribution of property by will; or how, if requested to sign a paper, he would at least make an effort to do so, though it might result in a complete bungle.

This power to respond, and this readiness to obey commands, are terminated sometimes very suddenly by the occurrence of death after some extra effort. In other cases, both the physical and mental powers fail gradually, and life does not become extinct till some hours after response and volition have failed. So far as the testimony instructs us, this impossibility of obeying requests, and of intelligent response, was reached in the case of this alleged testatrix about 12 o'clock on Thursday night, and she died about five hours after. It appears that, between 11 and 12 o'clock, having been asked if she would sign a will, she said, "Yes;" the arrangements were at once made, she was held in a reclining position, a pen was put into her hand, the place of signature pointed out, and she was requested to sign, which she did in a very imperfect manner. This having been accomplished, it appears in evidence that either she, or some other party, conceived the idea of adding a codicil. What conscious part she had to do with said codicil may be fairly inferred from the fact that, after responding to some half-dozen lines, of which it consists, she was too near dead to make it practicable to get her signature to it. She died, so far as can be gathered from the testimony, from four to five hours after this effort with the codicil, and died of asthenia. If it be admitted that she was suffering from alcoholic excesses, and that the cause of her death was even only in part of that character, not only the story of her symptoms, but the whole history of the influence of alcoholic poisoning on the intellect, and the accumulated clinical history of alcoholic delirium, go to confirm the opinion that this alleged testatrix had *no conscious appreciation of what she did or said for at least twenty, and probably seventy hours before death.*

If, however, we admit that there was a uræmic complication, or that uræmia was the chief cause of death, we encounter another unpleasant yet important fact in the case. On Wednesday, the day before the fatal symptoms came on, the ten cents' worth of laudanum was bought and probably administered, Now, it is a recognized fact that the administration of opiates in uræmia is dangerous practice in ever so skilled a hand; and hence, if that

were her condition, the result of that medication, on the husband's own responsibility, may have been disastrous, and will now, of course, never be known. It is just to the husband, however, to say that the symptoms on the following day, as described by the witnesses, all contradict the theory that she suffered from uræmia, or that, if she so suffered, she took laudanum on Wednesday.

But it is possible, however unprecedented it may be, for uræmia to be manifested in a rare form in this respect.

There are two points in the case about which the medical testimony and the lay testimony are positive; one is, that the deceased was unable to finish her last will and testament; the other is, that she died of some blood-poisoning, either uræmic or alcoholic, or possibly choleric. The only known circumstance in which the intellect of a person, fatally poisoned with urea, is sound and disposing, a few hours before death, occurs, as I have before said, in those cases where uræmic convulsions come on with little antecedent disturbance, and destroy life suddenly. This was not the case with this alleged testatrix, and therefore the idea that she died of uræmia, without convulsions, yet was of sound mind five hours before death, is quite untenable. The same law applies to the choleric or bile poison. On the other hand, if we accept the theory that her vitality gave way under the destructive effects of alcohol, she had no intellect, in all reasonable probability, for a day or two before death. In either case, we are without the slightest reason that this alleged testatrix had even an approach to a sound and disposing mind and memory after eight o'clock on the Thursday in question.

As this case would lose much of its instructive and practical features if some of the legal history of it were omitted, we will occupy a little time upon it:

As has been stated, there is no evidence, except from the principal heir, that the alleged testatrix knew anything about the contents of the proposed will. There is no evidence that it was read to her at the time she made the blundering effort to sign it. On the contrary, it is stated that it was not read. The parties solely interested in it either dictated it or witnessed it, or both; the husband, the father-in-law, and the brother-in-law, doing all these offices, and were all associated in business. The unsuccessful attempt to add a codicil was a most trifling matter pecuniarily, the whole amount thereby diverted being but a few hundred dollars.

The court before whom the case was heard, decided that the decedent was, at the time she signed the paper, of sound and disposing mind, and gets over the fact that the parties solely benefited by it should have had all to do with its dictation, and even with witnessing it, in the following way: "However indelicate or impolitic it may have been for the proponent to have persons so nearly related to him, as the subscribing witnesses to the will of

his wife, yet they were not disqualified, and I can find no reason in law why their testimony should be discredited, unless there should be other testimony and circumstances than have been presented in this case to weigh against their credibility."

Had the testatrix and proponents of this alleged will been, during the last day of her life, isolated from mankind, in the midst of some desert, or on some rock in the sea, there would be some reason for this attempt of the court to present an excuse for the fact that the parties witnessing it were closely related to the principal heir, and known to have been indirectly largely benefited by it; but when it is known that these witnesses affixed their signatures to it in the heart of a large city, and at an hour of the day when neighbors, notaries and lawyers are at their residences, and easily obtained, he will find it difficult to offer any laudable or legitimate reason for that "impolitic" irregularity.

It is often very useful to take different views of pictures as well as courts. The uncertainties of the law are thereby often shown to be quite as great as those said to be proverbial of medicine.

The same court which issued the above opinion, also, not very far from the same time, issued and subscribed to the following:

"The law is very zealous against straining after probate, when the preparation of a will is made by a party interested, to be executed by a person of doubtful capacity, and requires that, to support such probate, there must be *strong proof of intention outside of the interested party*, who claims to have acted under instructions.

"The court must take a cautious view in deciding questions of law and fact. It is an established principle that, where capacity is *doubtful at the time of execution*, there must be proof of instructions or of *reading over*. A man in a languid, torpid state may easily acquiesce in signing his name to a will set before him, more especially when he knows that there is something in the paper which he wishes to take effect; the presumption also is strong against an act done by the agency of the party benefited; the act is not actually defeated, as it was by the civil law, *provided the intention can be fairly deduced from other circumstances.* Though the court will not impute fraud, it will require *strong proof of intention.*"

There is no positive or even circumstantial proof that there was any intention on the part of the alleged testatrix to give all her property to her husband. In addition to what has been said in relation to the signing of the alleged will, it may be interesting to further quote from this same court as to the mere signing of a will being an index of the state of soundness of the mind of a testator. In the same opinion, above quoted from, it is said:

"The power to affix a signature to a will, or even to sign checks, does not prove sanity, so far as the law requires, to perform such a

solemn act as the making of a last will and testament. They may be merely automatic acts." Such unquestionably was the act of signing the alleged will in this case. The admitting of this will to probate was very clearly a "strain" in violation of all approved rulings, and of previous opinions of the same court.

Courts have the power to give opinions, and the people have a right to decide if those opinions are consistent with common sense and previous rulings, and physicians have an occasional right to say if those rulings are sustained by pathological facts.—*New York Medical Journal.*

Editors' Book Table.

[NOTE.—All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

Text Book of Physiology, General, Special and Practical. By JOHN HUGHES BENNETT, M.D., F.R.S.E., Professor of the Institutes of Medicine or Physiology, and senior Professor of Clinical Medicine in the University of Edinburgh, etc. With twenty-one Photo-Lithographic Plates. Pp. 606, with twenty-one pages of Illustrations, and twenty-four of Descriptive Text. 12mo. Extra cloth, $3.50.

Any book from this veteran teacher will be sure to attract attention and secure a sale, and the one before us, containing, as it does, the results of the long continued and careful investigations of a skilled observer and experimenter, cannot fail of wide popularity. Professor Bennett has been a teacher of systematic Physiology since 1848, and his particular views are very generally understood by students of Physiology. We find the subject divided in discussion into three parts, viz:

GENERAL PHYSIOLOGY, including—1. *Chemistry of the Tissues.* 2. *General Histology.* 3. *Physical and Vital Properties of the Tissues;* with a chapter on *Life or Vitality.*

SPECIAL PHYSIOLOGY, including—1. *Nutrition.* 2. *Innervation.* 3. *Reproduction;* with a section on *Death.*

PRACTICAL PHYSIOLOGY, discussing—1. *Practical Chemical Physiology.* 2. *Practical Histological Physiology.* 3. *Practical Experimental Physiology.*

The illustrations are photo-lithographic, and the book, as a whole, presents the greatest amount of information it has been our fortune to find condensed in the same bulk. We most heartily commend it both as a text book for students and for reference by practitioners.

We notice that Professor Bennett gives prominence in his account of the blood corpuscles to the important discovery of Professor Freer (CHICAGO MEDICAL JOURNAL, *April* 15, 1869,) with regard to the shape of these bodies, and also shows the appearance in his plates.

Diseases of the Urinary Organs; including Stricture of the Urethra, Affections of the Prostate, and Stone in the Bladder. By JOHN W. S. GOULEY, M.D., Surgeon to Bellevue Hospital, etc. With 103 Wood Engravings. New York: William Wood & Co. 1873. Cloth, 8vo. Pp. 368.

Dr. Gouley herein gives the substance of his Lectures at Bellevue Hospital, and in the Medical Department of the University of New York. It is intended to embody essentially the results of his experience in both his public and private practice, but also gives merited reference to the teachings of many others eminent in this department of surgical practice. It is a manual of the pathogeny, clinical history and treatment of some of the graver diseases of the urinary organs, with suggestions as to their early detection.

Writing largely from the standpoint of his own observation, the author recounts his cases with great clearness and accuracy, and displays, not only familiarity with the topics reviewed, but much ingenuity and originality in the adaptation of the instruments and mechanical appliances necessary for the successful management of the various difficulties encountered. It is a valuable contribution to the literature of the subject, and the most skilled surgeon will certainly find in it many important ideas for subsequent practice.

Expression: Its Anatomy and Philosophy. By SIR CHARLES BELL, K.H. With the Original Notes and Illustrations designed by the Author; and with additional Illustrations and Notes by the Editor of the "Phrenological Journal." An entirely new and enlarged Edition. New York: Samuel R. Wells, Publisher, No. 389 Broadway. 1873. Cloth. 12mo. Pp. 201. $1.50.

Clinical Lectures on various Important Diseases. Being a collection of the Clinical Lectures delivered in the Medical Wards of Mercy Hospital, Chicago. By NATHAN S. DAVIS, A.M., M.D., Professor of Principles and Practice of Medicine and Clinical Medicine, in Chicago Medical College. Edited by Frank H. Davis, M.D. Chicago: J. J. Spalding & Co., 138 Clark Street. 1873. Cloth. 12mo. Pp. 265. $3.00.

Eighteen lectures, covering quite a variety of important topics, are here collected. We find two on Continued Fever, two on the Summer Complaints of Children, and one on each of the following: Periodical Fever; Rheumatic Fever; Scarlatina and Rubeola; Respiratory Affections; Pulmonary Tuberculosis; Diseases of the Alimentary Tract; Intestinal and Uterine Irritation; Dropsy; Causes of Cardiac Disease; Neuralgia; Nervous Affections; Affections of the Brain; Cerebro-Spinal Disease; Cutaneous Diseases.

The Clinical Reports containing these lectures have appeared from time to time in the columns of the *Medical Examiner*, but from the interest in them manifested by readers, it was deemed proper to collect them in a more convenient form. Although reported by different persons, little change has been made, save in occasional consolidation of two or three Clinics in one.

As containing the opinions and modes of practice of a gentleman well known to the profession, of long continued and remarkably extensive practice, this unpretentious volume is well worth the perusal of the medical public.

Civil Malpractice. A Report Presented to the Military Tract Medical Society, at the Fifteenth Semi-Annual Meeting, January, 1873. By M. A. MCCLELLAND, M.D. Chicago: W. B. Keen, Cooke & Co., Publishers, Nos. 113 & 115 State Street. 1873. Cloth. 8vo. $2.00.

Readers of the JOURNAL will recognize this as a collection in book form of the series of articles published in the present volume. So much interest has been exhibited in them that this was considered due the profession. Further notice will be given in a subsequent number.

Archives of Ophthalmology and Otology. Edited and Published simultaneously in English and German. By Prof. H. KNAPP, M.D., of New York, and Prof. S. Moos, M.D., of Heidelberg. Volume III., No. 1. New York: William Wood & Co., 27 Great Jones Street. 1873. Paper. Pp. 260 and 5 pp. plates. $7.00 per year. Issued semi-annually. Price for the bound volumes already published, in half morocco, $8.50 each.

New Life in New Lands. Notes of Travel across the American Continent, from Chicago to the Pacific and back. By GRACE GREENWOOD. 12mo. Pp. 415. Cloth, Stamped Cover. Price, $2.00.

This is a gathered series of letters—racy, brilliant, piquant, full of keen observation, and pungent statement of facts, picturesque in delineation of scenes on the plains, in the mountains, and along the sea. The late William H. Seward characterized her account of Mormons and Mormonism, which has been included in the book, *the most graphic and trustworthy he had ever read.* It is a book full of delightful reading all the way through, and, like a nut, has many a choice morsel tucked away in sly corners for those who find them.

PAMPHLETS RECEIVED.

Thirteenth Biennial Report of the Trustees, Superintendent and Treasurer of the Illinois State Hospital for the Insane at Jacksonville. December, A. D. 1873.

American Association for the Cure of Inebriates: Proceedings of the Third Meeting, held in New York, October 8, 9 and 10, 1872.

The Charter and By-Laws of the New York State Inebriate Asylum, (Binghamton,) etc., etc. 1873.

Report of Commissioners Appointed to Select a Site and Build an Asylum for the Insane of this State, [New Jersey.] November 1st, 1872. With Ground Plan, etc.

The Logic of Medicine. By EDWARD S. DUNSTER, M.D. New York: D. Appleton & Co. 1873. An Address before the New York Academy of Medicine, December 30th, 1872, being its 29th Anniversary.

Transactions of the Third Annual Session of the Medical Society of Virginia. Staunton, November, 1872.

Manufacturing, Agricultural and Industrial Resources of Iowa. By H. S. HYATT, Editor of the "Iowa Progress."

The Criminal Use of Proprietary Nostrums. By ELY VAN DE WASKER, M.D., Syracuse, New York.

Report of the Board of Administrators of the Charity Hospital to the General Assembly of Louisiana. Session of 1873. From J. D. Lichtenberger.

Report of the Pennsylvania Hospital for the Insane, for the year 1872. By THOMAS S. KIRKBRIDE, M.D., Physician-in-Chief and Superintendent. Pp. 70.

Florida and South Carolina as Health Resorts. By WILLIAM W. MORLAND, M.D., Harv. Pp. 20.

Contributions to the Diagnosis of Cancerous Diathesis—Carcinosis. By WILLIAM B. NEFTEL, M.D., New York. A reprint.

New Method of Preserving Tumors and certain Urinary Deposits During Transportation. By JOSEPH G. RICHARDSON, M.D., etc., etc. Philadelphia: J. B. Lippincott & Co.

A New Method of Treating Strictures of the Urethra, after External Sections. By C. H. MASTIN, M.D., Mobile, Ala. Read by request before the Mobile Pathological Society, Sept. 9, 1872. From the author.

Ninetieth Annual Catalogue of the Medical School (Boston) *of Harvard University.* 1872–73.

Transactions of the Territorial Medical Society at its Second Annual Meeting. Held in Denver, Colorado, September, 1872.

Proceedings of the Third Annual Session of the State Medical Association of Arkansas. Held at Little Rock, Jan. 6, 7 and 8, 1873.

Eighth Annual Report of the Illinois Institution for the Education of Feeble Minded Children, located at Jacksonville. To the Governor of Illinois, Dec., 1872. Organized 1865—Incorporated 1871. From C. T. WILBUR, M.D., Superintendent.

Editorial.

Vaccine Virus.

In common with our brethren of the profession, we have experienced great difficulty in procuring reliable vaccine virus, even for our own use in private practice. It is, therefore, with great pleasure that we now call attention to a circular in our advertising pages, announcing a new source of supply.

From the testimonials and letters which have been presented to us, we believe that our friends may rely upon our advertisers as performing exactly what they promise, and furnishing precisely what is asked for. It is a good time now to test whether the virus, fresh from the heifer, is a better prophylactic than that which has for generations, perhaps, been passing through the human body. Very many bits of scab will make a *sizable* sore when tucked under the epidermis, but by no means prevent small-pox. To accommodate our subscribers and others corresponding with, or visiting, our publishers at their mammoth bookstore, they have consented to act as agents, and supply calls for the guaranteed virus. Address, as upon the cover: W. B. KEEN, COOKE & Co., 113 and 115 State Street, Chicago.

Los Angeles, California.

Thanks are due to our friend, J. H. Leal, M.D., well known to the alumni of Rush, for Los Angeles papers detailing the favorable character of that region as a sanitary resort, particularly for patients disposed to tuberculosis. Dr. Leal has himself found there the boon of good health which other climates had denied him. Our own opinion is especially favorable to this locality, in very many cases of tuberculosis, even when unmistakably developed.

We take the liberty, that we hope our friend will forgive, to refer those seeking information on this vital point to his address, Temple Block, Los Angeles, California.

The Graphic.

There comes to the JOURNAL, under this title, a new daily evening paper from New York City with such remarkable peculiarities that we cannot think it out of place to notice it in our pages. It started out scarcely two months since, and has already achieved a success unparalleled in the history of journalism. Seven steam presses, aided by the most extensive machinery, have proved wholly inadequate to supply the daily demand. Three editions are issued each afternoon, containing not only all the current news, but three and a half pages of pictures illustrating all important events wherever they occur. By a new process, with the details of which we are not familiar, photography affords the type from which the imprint is immediately taken. Events of

the last twenty-four hours are thus given in a style of illustration heretofore only attempted after a considerable period by ordinary illustrated papers, such as Harper's, Leslie's, etc. The further application of this wonderful art suggests itself in numberless ways. The vast expense attendant upon even the commonest engravings has heretofore prevented their coming into more than occasional use. Within a brief period we hope to see it brought into general use for the illustration of reports of surgical cases of all sorts, and even many varieties of so-called medical disorders, outlines of apparatus, etc., etc. The invention which prints, almost instantaneously, is certainly worthy of more than a passing notice.

Aside from its peculiar character as an illustrated paper we also find "The Graphic" in every sense a *news*paper, fully up to its most enterprising contemporaries, and its various editorial notes and reflections, keen and sensible, crisp and sparkling.

THE GRAPHIC, daily, is afforded at the extraordinarily low price of $12.00 per year. Single copies, 5 cents. Address THE GRAPHIC COMPANY, New York City.

Toner Lectures.

A series of lectures has been instituted at Washington under the "Toner Fund to encourage the discovery of new truths for the advancement of Medicine." The trustees of the fund are the following distinguished gentlemen:

JOSEPH HENRY, LL.D., Secretary Smithsonian Institution.
JOSEPH K. BARNES, M.D., Surgeon General U. S. A.
J. C. PALMER, M.D., Surgeon General U. S. N.
JAMES E. MORGAN, M.D., President Medical Society, D. C.
J. M. TONER, M.D.

We take pleasure in acknowledging receipt of an invitation to attend, which we should most cordially accept if in our power. This is a most encouraging movement in the right direction, evincing a tendency to rise above questions of medical etiquette, points of order, and dubious disquisitions on "elevation of the profession" by resolution.

Another such a course should be inaugurated in Chicago, the metropolis of the Northwest. Let both the public and the profession know that earnest work, with rich reward of discovery, is going on in the domain of medical science. As illustrative of what

is being accomplished at the capital we extract the following from the Washington Republican of the 19th ult.:

"*The Nervous Force. Dr. Brown-Sequard's Lecture Last Night.*—Dr. Brown-Sequard's lecture on 'The Nervous Force'—the second of the Toner course—was delivered last evening at Marini's Hall, before an audience remarkable alike for quantity and quality. The doctor's world-wide fame appeared, notwithstanding the threatening aspect of the weather, to have drawn out the whole army of Washington scientists. In every part of the room might be seen the well-known face of some gentleman who has won local distinction by his persistent efforts in extending the bounds of human knowledge, or storing up in his mind the result of previous investigation. A few *dilletanti* hung about the skirts of the crowd, and row upon row of doctors in solid phalanx filled the body of the hall. Even quite a bevy of ladies were present, and an equal number of blushes at certain parts of the lecture.

"Professor Henry introduced the lecturer with a few laudatory remarks, referring incidentally to the recent great advance of the cause of science in this country, the liberal donations of Congress, and the bright prospects of the Smithsonian Institution.

"Dr. Sequard's remarks were concise, and replete with valuable facts. No inquiry was attempted into the occult causes and nature of the subtle power which caused the strange phenomena that he described. Once or twice some telling anecdote or bit of illustration was introduced, provoking hearty peals of laughter.

"The speaker, after a few preliminary remarks on the subject of his lecture, said that the variety of phenomena in the nervous system is much greater than is generally supposed, even by medical men. All sorts of skin eruptions are more or less traceable to nervous disorder. Experiments in animals had shown that the eruption followed immediately after exciting certain nerve centres. It was only within the last ten years that it has been discovered that a bedsore was due, not to pressure of the bed, but to spinal lesion, or spinal irritation; when, for instance, an irritation in the spinal column was produced, a bedsore appeared. They often come on parts subjected to no pressure whatever.

"Elephantiasis—a disease peculiar to South American countries—may be caused by an affection of the nerves by tumor. Bones are injured by nervous influences, as are joints, the former not only diminishing in size, but their marrow wasting. Pain in the joints, is caused by an irritation at the base of the brain.

"The lecturer referred to various physiological effects caused by an irritation at the base of the brain, giving among many instances the following: The knee in one night might be made twice its usual size. Immediate injury to the lungs might be produced. A number of white corpuscles could be made to appear in the blood; indeed, the brain itself should be considered as a part of the

nervous system. The irritation arising from severed nerves sometimes caused an injury to the spinal cord. A lesion of the spinal cord might change the structure of the brain.

"Disease of any part of the brain does not necessarily arise directly from injuries to that particular part, but may proceed from some other part of the nervous system. An irritation starting from the cerebellum, on the left side of the head, often causes loss of sight of the right eye or *vice versa*.

"An injection of cold water in the ear will make a person stagger or trot round in a circle like a horse in a circus. The Duke of Wellington, like many other noblemen, was stupid enough one time to consult a quack, who injected nitrate of silver in his ear, and set the duke rotating faster than he (the lecturer) could make his arm go. [Laughter.] The lecturer here read an extract descriptive of a high-seasoned dish, of which Frederick the Great one time partook. Not satisfied with this mess of garlic and spiced meats, he ate directly afterwards a veal pie so hot that it seemed to have been baked in hell. He was seized with convulsions. Perhaps it would have a different effect on the speaker as he was not a great man. [Laughter.]

"A great variety of effects were produced by apparently the same cause, as in the case of persons in a perspiration coming out of a theatre. Some took cold in the head, lungs, throat, and so on. In each nervous system there are parts which are easier to excite than others. Exciting certain nerves will contract blood vessels, and produce attraction of the blood by tissues. When the nerve running to the heart is galvanized, the action of the heart is stopped. Indeed, whenever we breathe we produce a decrease of action of the heart. The exchanges between tissue and blood are stopped by certain forces of the nervous system. The loss of consciousness in epilepsy is caused by irritation of the *medulla oblongata*.

"Stick a pin in your spinal column and it will produce complete paralysis. Coughing can be stopped by distending one's nostrils with the finger and thumb. A pressure of the finger upon certain parts of the face will stop sneezing, and by pulling down the sufferer's big toe convulsions may be stopped.

"The lecturer, after giving several examples of this character concluded his address by thanking the audience for its attendance and attention."

The Chronicle says: "If the doctor could have had six hours to present what he was forced to crowd into one, he would have suited himself and his audience much better, but no one could do more than he did in the same time."

PUBLISHERS' NOTICE.

Our NEW CATALOGUE *of Medical and Surgical Works*

IS MAILED THIS MONTH TO EVERY SUBSCRIBER TO THE JOURNAL, WITH THE PRICES ANNEXED AT WHICH THEY WILL BE SENT BY MAIL, FREE OF POSTAGE, UPON RECEIPT OF THE MONEY.

HOW TO PROCURE BOOKS.

We will forward per U. S. Mail, and prepay postage upon the same, all books named in this Catalogue, weighing four pounds and under, (Books weighing over four pounds are not mailable,) upon receipt of Publishers' Prices, as named herein.

☞ We assume no risk upon Money or Books, although out of the many hundreds of volumes sent by us by mail, none to our knowledge have been lost.

We will forward Books to all points reached by the REGULAR EXPRESS LINES, east of the Mississippi River, and prepay charges on the same, upon the receipt of Publishers' Prices. Money to accompany all orders.

☞ When Books are forwarded per EXPRESS "COLLECT ON DELIVERY," all expenses of freight and of returning the money, must be paid by the consignee.

The safest mode of remittance is by bank check, or postal money order, drawn to our order. Where these are not accessible, remittances may be made at our risk, by forwarding in registered letters.

Address—

W. B. KEEN, COOKE & CO.,
113 & 115 *State Street, Chicago.*

The Illinois State Medical Society.

The Twenty-third Annual Session of this Society, will be held in Bloomington, Illinois, May 20th, 1873, at 10 A.M.

The following Committees are expected to report.

STANDING COMMITTEES.

Practical Medicine.—S. K. Crawford, M.D., Monmouth; D. L. Jewett, M.D., Watseka; H. M. Lyman, M.D., Chicago.

Surgery.—J. L. White, M.D., Bloomington; J. B. Hamilton, M.D., Kane; H. W. Kendall, M.D., Quincy.

Ophthalmology.—E. L. Holmes, M.D., Chicago; J. P. Johnson, M.D., Peoria; F. C. Hotz, M.D., Chicago.

Otology.—S. J. Jones, M.D., Chicago; Chas. Hunt, M.D., Dixon; Thos. Galt, M.D., Rock Island.

Obstetrics.—T. D. Fitch, M.D., Chicago; A. Niles, M.D., Quincy; D. S. Jenks, M.D., Plano.

Drugs and Medicines.—J. H. Hollister, M.D., Chicago; E. P. Cook, M.D., Mendota; J. L. Hamilton, M.D., Peoria.

Necrology.—G. W. Albin, M.D., Neoga; J. O. Hamilton, M.D., Jerseyville; J. K. Secord, M.D., Elmwood.

SPECIAL COMMITTEES.

Galvano-Therap.—D. Prince, M.D., Jacksonville.
Hernia.—J. H. Reeder, M.D., Lacon.
Hygiene.—T. F. Worrell, M.D., Bloomington.
On the Assistance Necessary and Justifiable in Difficult and Protracted Labors.—S. B. Hawley, M.D., Aurora.
Stricture of the Urethra.—John Murphy, M.D., Peoria.
Phthisis Pulmonalis.—H. A. Johnson, M.D., Chicago.
Phys. Nerv. Syst.—C. W. Earl, M.D., Chicago.
Cerebro-Spinal Meningitis.—G. Wheeler Jones, Danville.
Locomotor Ataxia.—N. S. Davis, M.D., Chicago.
Orthopedic Surgery.—J. S. Sherman, M.D., Chicago.
To Prepare and Deliver a Public Address at the next Meeting of the Society.—George T. Allen, M.D., Springfield.

Loot.

Elevating the Standard.

Our friend of the Medical Record thinks it must be a very poor medical school which would not, in twenty years, turn out one or more who would afterwards work out for themselves a reputation that would not die with them. We dare say he is right in this; for it would be difficult to believe that a road-side public house could exist prosperously for a score of years without enabling the landlord to show on his register names whose owners had risen to celebrity after supping and lodging with him. But we think it extremely doubtful whether a landlord, in all the country round, would swallow metaphysics enough in a lifetime to attempt to establish the relation of cause and effect between his jug-tavern and that celebrity. Oh! no! Nobody but a doctor could do that.

Let us be understood. There were great doctors before medical schools, and there have been great ones since, and in despite of them. We believe a medical school never made one great man, and never will, though they are helps and spring-boards in that direction.

The new plan to force this unnatural relation, by adding to the name of the graduate the place where he was born into medicine, in the vain hope that mamma may help baby along, to say nothing of the palpable violation of our ethics it involves, is a laughable puerility. One signs himself P. Q. Z., M.D., Edin., and immediately there spring up, in the mind of the reader, winding rivers, tall, thin-clad trees, long grass, and abundance of sunshine and azure, with a couple of fig-leaf-aproned people, otherwise nude,

of opposite sexes, and desperately in love with each other. But unfortunately, Eden is spelled with an "i," and the picture vanishes. What can it mean? Why, it is intended to convey the idea that the owner of that name graduated at Edinburgh, Scotland—a weak parody upon "Help me, Cassius, ere I sink." Another writes "Harv." at the end of his name, to show that mamma is somebody, whatever may be thought of young hopeful. But the reader seeing "Harv.," has his mind running on "harvest home," and is busy recalling its festivities with the English peasants in the time of Henry VIII. Then comes "Jeff.," and "Penn.," and "Belle," and "Lou.," and "Cin.," and "Nash.," and a whole Babel of jargon of thundering sound, signifying nothing—non-asinine.

Graduate in Medicine from our honored old University on yonder hill, rely on nothing under God but your own brave soul, with fixed determination of purpose to *deserve* distinction, and, if life lasts, it will perch upon the standard that *you*, not I, have raised. Here, as elsewhere, you must work out your own salvation.

I plant my standard in the milky way,
Upon the very key-star of the arch,
And to my hesitating pupil say,
"Look ye steadfast, upward, and forward, march!"

Let its bright silken streamers rustle there,
Amid the gems and glories of the sky.
While pointing to it, in that virgin air,
I ask opposers, "How is that for high?"

—*Nashville Jour. Med. and Surg.*

Attempted Reduction of Dislocation of Shoulder Joint — Rupture of Axillary Artery — Death.

The patient was admitted into the Royal Infirmary, Edinburgh, under the care of Mr. Lister, on account of an unreduced dislocation of the shoulder joint of seven weeks' standing, but said by the patient himself to have been of only five weeks' duration. Professor Lister, by manipulation, and subsequently by the pulleys, attempted to reduce the dislocation, no undue force being exerted by either method. During the attempt a sharp crack was heard, and subsequently a swelling, which ultimately reached the size of an adult head, took place on the dorsal and posterior part of the scapula; the occurrence being due to the rupture of the axillary artery, and subsequent effusion of blood into the surrounding textures.

Without hesitation, Professor Lister cut down on the spot, and proceeded to search for the ruptured vessel, opening, by his incision, into a sacculated structure into which the blood had been effused, and from the bottom of which the blood appeared to

flow. Careful search for the source of the hemorrhage was, after a considerable period of time, rewarded, by finding that the bleeding-point was situated on the posterior aspect of the artery itself—a situation which, the Professor remarked, was rather unusual, and not likely to be easily got at or seen. The vessel was accordingly ligatured above and below the bleeding point, antiseptic measures being taken during and after the operation to prevent the occurrence of putrefaction. The patient rallied immediately after the operation, but sank and died in about three hours subsequently.

Professor Lister remarked on the importance of the occurrence from a practical point of view, at the same time remarking on the obvious duty of at once cutting down and securing the bleeding vessel.

A dissection of the parts showed several features of interest. The humerus had attached to its staff a little spiculum of bone, which was evidently the immediate cause of the perforation of the artery, which itself was highly atheromatous, and so rendered the more friable. The head of the bone had, during the comparatively short period of seven weeks, formed for itself a false glenoid cavity, in which it had been reposing; the existence of this structure forming an additional element in the difficulty of successfully or readily reducing the dislocation. Short as the period had been, it was instructive (said Professor Lister) to note that this cavity was not only of cartilaginous texture, but even exhibited traces of osseous development also.

Professor Lister, in conclusion, regretted that he had not instructed his house-surgeon to send for him at once on the intervention of the serious later symptoms, as the case would have presented the most favorable aspects for the performance of the operation of transfusion of blood from the veins of a person willing to furnish the requisite supply.—*Med. Times and Gazette*, Feb. 1, 1873.—*Medical News.*

What is Homœopathy?

According to the census of 1870, unless our information is wholly incorrect, the proportion of homœopathic practitioners was a fraction over seven per cent. of the whole body of the medical profession in the United States. Be it remembered that this is after over thirty years of effort to propagate the doctrines of that peculiar school, and in spite of a strong tendency on the part of physicians everywhere to investigate, and to adopt, if satisfactory, whatever new principle or practice promises to aid them in the battle with disease. Can it be, then, anything but the warmest enthusiasm that enables an orator before the New York State Homœopathic Medical Society to say, "Who will deny that, at no distant date, either under the name of the Homœopathic School, or adopting a title now often used synonymously,—that

of the 'Modern School of Rational and Liberal Medicine,'—we may see the two great branches of the medical profession, for many years estranged and often hostile, united in one solid phalanx, under the ample folds of that banner, unfurled to the gaze of an astonished world by the genius of Samuel Hahnemann, on which, inscribed in letters of living light, are the words '*similia similibus curantur*,' and, actuated by that philosophic and Christian motto, *in certis unitas, in dubiis libertas, in omnibus charitas*,' marching onwards to the attainment of conquests over disease and death, such as have never yet been depicted in the dreams of the most ardent medical enthusiast? Then will have come the millennium of medicine. God grant a consummation so devoutly to be wished!"

No doubt the homœopathists would be glad to have the profession at large adopt their absurd dogma, to which they themselves, in their practice, do not adhere. No doubt they would be glad to have us, with all the results of scientific research, and the records of past battles gallantly won or as gallantly lost, come over to their ranks. But why do they not show us one single case in which a remedy produces, in the healthy body, the genuine symptoms of a disease in which it is known to be useful? Why do they not show us that belladonna will induce something more than the most superficial and unimportant phenomena of scarlet fever? that chloral or the bromide of potassium will prevent sleep? that mercury or iodide of potassium will give rise to the essential secondary or tertiary manifestations of syphilis? How do they explain the perversity with which the entire scientific world declines to recognize them? We cannot suppose that Humboldt, Arago, Sir Humphrey Davy, Agassiz, and a host of others—dead and living—men of inquiring minds, intolerant of any bar to the freest examination of every theory or hypothesis in regard to the secrets of nature,—would have hesitated for one moment to give in their allegiance to any doctrine, if it could maintain itself by facts.

From our own free wanderings in the field of homœopathic literature, we are convinced that the more extensively regular physicians are acquainted with it, the more strengthened will they be in their sense of its absurdity. Even the advocates of that dogma find that their own school affords them insufficient nutriment; for in a recent number of one of their leading journals, out of thirty quoted items, *twenty-five* were from regular medical sources, *three* only from homœopathic; one was from a secular paper, and one was not credited at all.

We answer the question which heads this article, by asserting that homœopathy is a mere name, signifying nothing.—*Philad. Med. Times.*

The Horse-Influenza.

Our readers will have had such a surfeit of items in the daily papers with regard to the influenza now prevailing among animals of the horse kind, that we propose only to call attention to a few of its more remarkable features.

In the first place, the singular rapidity of its progress precludes the idea of its spread by contagion. It was first known in Canada, less than six weeks ago, and since that time has spread over the whole of New York, and the Eastern States, and Pennsylvania, and is now (November 9) felt in Baltimore. Only if very large numbers of horses were moving in this southward direction would the theory of its propagation in this way be at all tenable. Then, again, it has affected all the horses, in small villages and in the country. Some atmospheric convection, independent of wind-currents, must necessarily be the means of its spread.

Secondly, the universality of the disease is to be noted: we may perhaps say that not a single horse has escaped, as even those which have not been actually laid up have shown the effects of its depressing influence. Mules seem less susceptible to it than horses, but many of them, and we believe all more or less, have felt it. Within the memory of the oldest horseman there has never been such a visitation; and indeed the peculiar inconveniences entailed are such as would have impressed the recollection of an epizootic of the kind upon the minds of the public as well.

Thirdly, the exemption of all but animals of the horse kind. There have, it is true, been a few cases of influenza in the human species, but the health of the city may be said to be exceptionally good, and the mortality returns are very small. The vague rumors of horned cattle being affected, which have prevailed from time to time, are not confirmed so far.

The deaths seem to have been limited to such horses as were previously in poor condition, from age, over-work, or disease; some also, from neglect in the early stages of the epizootic, have been attacked with fatal pneumonia. It may be that, like the poison of scarlatina or small-pox, the peculiar cause of this disorder is in some cases so virulent as to hurry off the animals affected before the symptoms are fully developed; but of this the evidence is not yet satisfactory. Another cause of death has doubtless been the working of horses before they had fully recovered their strength, congestion of the lungs being especially apt to occur under such circumstances, and to run on into fatal pneumonia.

We trust that from the intelligent and careful investigation of this remarkable scourge, there may be derived some facts bearing upon the natural history and mode of propagation of the zymotic diseases which affect the human family.—*Ibid.*